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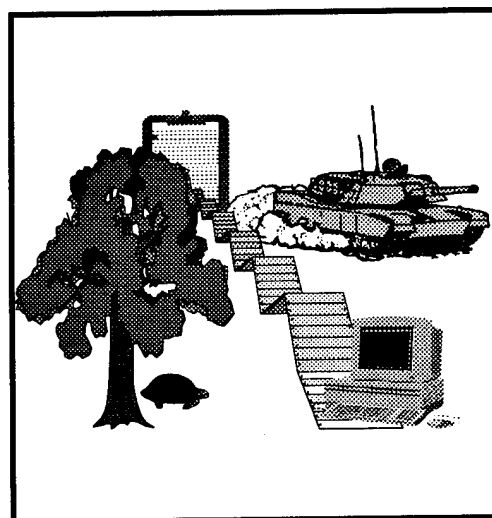
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Land Condition Trend Analysis (LCTA) Program Data Dictionary: Version 1.0

by
William L. Sprouse and Alan B. Anderson

This data dictionary is a logically organized repository of information describing all relevant land condition trend analysis (LCTA) data, including data characteristics, relationships, and usage. The data dictionary contains detailed information required to interface effectively and use LCTA databases.

This document provides a complete description of each LCTA database entity and relationship, structured query language (SQL) commands to construct a new LCTA database, a database scheme diagram to help visualize the information structure, and SQL commands to migrate early versions of the database into the current structure.



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Foreword

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Contents

SF 298	1
Foreword	2
1 Introduction	5
Background	5
Objective	6
Mode of Technology Transfer	6
2 Database Description	7
LCTA Field Methodology	9
Document Syntax and Terminology	9
Plot Information	10
Land Use Data	11
Vegetation Data	13
Supplementary Information	23
Summary Data	24
Validation Tables	24
Relational Constraints	25
Legacy Components	30
3 Database Schema Updates	31
New Tables	31
Modified Tables	33
Discontinued Tables	34
Modified Data	34
4 Database Migration Strategy	35
References	83
Appendix A: Database Schema	84
Appendix B: Entity (table) Information	87
Appendix C: Data Element Information	99

Appendix D: Data Definition Language (DDL)	197
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Distribution

1 Introduction

Background

The U.S. Army Construction Engineering Research Laboratories (USACERL) developed the Land Condition Trend Analysis (LCTA) Program to provide standardized data for natural resources management and land stewardship on military installations. The LCTA program is a standardized method of natural resources data collection, analysis, and reporting designed to meet multiple goals and objectives. LCTA uses information on topographic features, soil characteristics, climatic variables, vegetation, and wildlife resources to characterize an installation's natural resources in a cost- and time-effective manner. The information will (1) assist installation managers with making decisions on best use of land, scheduling of military activities, protection of threatened and endangered species, and long-term environmental planning; (2) provide officials at all levels with standardized natural resources inventory information for installations across the continental United States and overseas.

LCTA is an Information Management System (IMS). LCTA IMS is a series of Army-developed executable programs, data storage schemes, and commercial off-the-shelf (COTS) products that span two operating systems (MS-DOS/Windows and UNIX). This is the system for Army Conservation Pillar natural resources information and processing capabilities. The object of the LCTA IMS is to provide user friendly automated programs to collect, analyze, interpret, and report natural resources data and land use impacts for decision making.

Components of the LCTA IMS include:

- automated data collection techniques
- imagery processing for remotely sensed images and spatial data
- multimedia and hypermedia applications
- global electronic networking between installations headquarters and a natural resources support center
- relational database management system
- LCTA users interface.

Automated data collection techniques provide improved data accuracy. Imagery processing is beneficial to data extrapolation. Multimedia and hypermedia applications provide textural and graphics information. Global electronic networking simplifies update distribution, lessons learned, and data standards. The LCTA users interface program documentation enables land managers to automate data analysis tasks and provide easy integration with other COTS programs currently in use at government installations.

An information system is "A system that consists of people, machines, and methods for organizations to accomplish specified operations on data that represent information. An information system may include data devices, office machines, communications equipment, peripheral equipment, and associated data media and accessories" (Newton and Wahl 1993). The LCTA IMS is designed to give installation environmental personnel the equipment, resources, and methods to meet the natural resources management and land stewardship issues on the installation. LCTA IMS utilizes commercially available software to reduce program development costs. Army developed software is used where specific needs are not met from other COTS software.

Objective

The objective of this manual is to provide the necessary information for users of the LCTA database to initiate, understand, and interpret the data contained in the database.

Mode of Technology Transfer

The LCTA database is provided to installations that have initiated or plan to initiate LCTA field sampling methodology. In addition to the database, the LCTA users interface program documentation, which facilitates use of the data, and the standard commercial database management software also are provided. The Office of the Directorate of Environmental Programs (DAIM), Assistant Chief of Staff (Installation Management) (ACS(IM)), sponsors annual LCTA training workshops conducted by USACERL staff, for military resource management personnel. The LCTA database is supported by newsletters, documentation, training programs, user support center, and hands-on experience.

2 Database Description

The main text of this document provides a general overview of the database structure for each of the major field sampling data groupings. Each portion of the database structure is described in terms of the field sampling methodology associated with the data and the relationships of the data with other data. Quality assurance quality control (QAQC) features incorporated into the database also are discussed.

A migration strategy to convert earlier versions of the database into the current structure also are described in the main text of this document. The migration strategy is a series of SQL commands that convert existing LCTA databases to the current structure. These commands implement the QAQC features discussed in this document.

Appendix A contains an entity relationship (ER) diagram showing the LCTA database schema. This diagram helps the reader visualize the database structure described elsewhere in the document.

Appendix B contains a detailed description of each data base entity (table). Entity descriptions are in alphabetical order for easy access. Appendix C contains an alphabetical list of each LCTA database data element. Detailed information on each data element includes a description of the data, the data type, if data is required, if the data is derived from other data, and valid data values. These detailed entity and element descriptions and the ER diagram in Appendix A allow the reader to incorporate detailed database information into the general descriptions in the main text as needed to more fully understand certain aspects of the database.

Appendix D contains a series of SQL commands that completely describe the LCTA database. These statements allow a database manager to construct a new database from only these SQL statements, and they also define the data interface for software developers, systems maintainers, and data managers.

A relational database model, or a Relational Data Base Management System (RDBMS), represents data as tables, with records stored as rows (observations) and data elements (variables) stored as columns of the rows. Tables also may have relationships with other tables. These relationships can have two forms: join

relationship and referential integrity constraints. Tables with join relationships have data elements in common and allow common data to be joined by use of a Structured Query Language (SQL) statement. Tables with referential integrity constraints can be defined as parent and child tables. A parent table controls the entry of data into the child table. Specific data must be present in the parent table before it is allowed in the child table. In relational theory the parent table has a primary key and the child table has a foreign key. An example can help to explain this issue. When point data is collected on an LCTA plot information about the location, type of vegetation and measurement date are recorded. To eliminate the need of repeating this information for every observation of point data for ground vegetation, a relationship is defined between the two tables PLOTSURV and GNDCOVER. The plot number and the recording date are defined as the primary key variables. A well designed RDBMS structure will eliminate redundant data and ensure data integrity. This document discusses the LCTA database and includes enhancements to the current database design to take full advantage of relational database theory and protect the integrity of the data.

The LCTA database can be divided into nine distinct components:

- plot information data
- land use data
- vegetation data
- wildlife data
- climate data
- soils data
- supplementary information
- summary data
- validation tables.

These components reflect information about the natural resources of the installation collected at LCTA plots. To simplify the understanding of the LCTA database data dictionary, the database will be represented first as its distinct components with little mention of the relationships between tables. The database then will be brought together to show the overall structure. The following description of the LCTA database consists of the database schema released with version 1.0 of the LCTA user's interface. In addition, changes to the database to enhance the usability and data integrity have been added. For a list of the changes refer to Chapter 3, Database Schema Updates. The migration strategy for making the changes to the database will be discussed later.

A brief description of the collection methodology will precede each section. This will give the reader a better understanding of the LCTA data. This information has been

taken from *U.S. Army Land Condition-Trend Analysis (LCTA) Plot Inventory Field Methods* (Tazik et al., February 1992), which gives more detailed information about the LCTA data collection techniques. A complete LCTA data dictionary will be presented at the end of the database discussion.

LCTA Field Methodology

The structure of the LCTA data dictionary is largely controlled by the types of data collected and the manner in which the data was collected. To make use of LCTA data properly and to understand the structure of the LCTA data dictionary, a thorough understanding of the field methodology is required. It is beyond the scope of this document to describe the LCTA field data collection methodology completely; however, a brief description of the collection methodology precedes each data dictionary section. This condensed description provides the reader with sufficient understanding of the LCTA data for the purposes of this document; the level of description provided is sufficient only to understand and interpret the database structure. Detailed information describing standard field methodology is given in *U.S. Army Land Condition-Trend Analysis (LCTA) Plot Inventory Field Methods* (Tazik et al., February 1992). See this publication for detailed information about LCTA data collection techniques.

Document Syntax and Terminology

The following syntax conventions are used:

Entities (tables) names are in uppercase.

Data element names are uppercase.

The following terminology is used throughout this publication:

Entity : An entity, or table, stores data within a relational database management system. Data in an entity is represented by rows of data elements. Entities allow like data to be stored separately, for example, ground vegetation data is in GNDCOVER and land use data is in LANDUSE.

Data Element: Data elements make up the columns of an entity. Data elements have a name, data type, data length, nullity, and rules. INSTALID is the name of the column that stores the

	installation identification code. It is a character field of length 3 and requires data.
Nullity:	A column constraint that sets the data requirement rule for a data element. Data is required if a data element has a nullity rule of not null.
Referential Integrity:	Tables with referential integrity constraints can be defined as parent and child tables. A parent table controls the entry of data into the child table. Specific data must be present in the parent table before it is allowed in the child table.
Join Relationship:	Entities with join relationships have data elements in common, and common data can be joined by use of a SQL statement.
Primary Key:	Used in referential integrity constraints. The controlling data element of the parent table.
Foreign Key:	Used in referential integrity constraints. The data element of the child table controlled by the primary key of the parent table.

Plot Information

To ensure that the LCTA plots can be relocated, accurate site descriptions and maps must be prepared and photographs taken. Most of the descriptive information and maps are recorded during the initial inventory. The maps and site descriptions provide instructions so someone without prior knowledge of the site can relocate the beginning stake and resurvey the plot. The photographs also document the condition of the plot over time.

Initial inventory plot information is stored in the plot master table (PLOTMAST). Subsequent monitoring dates for each plot and other plot information is stored in the plot survey (PLOTSURV) table. These two tables will contain such information as the installation training area number, UTM coordinates, and USGS 7.5-minute quadrangle map name. Only information that should not change over time is stored in the PLOTMAST table; specific information for each measurement date is found in the PLOTSURV table.

To take full advantage of the current database system, a plot maps (PLOTMAP) table has been created. This table allows for the storage of plot location maps and photographs in digital form. For information on storing these images and the accepted formats, refer to the LCTA users interface program documentation and your vendor's database system manual.

<u>Table</u>	<u>Purpose</u>
PLOTMAST	master plot table [one per LCTA plot]
PLOTSURV	table identifying all inventories on each plot
PLOTMAP	map images for each plot

Land Use Data

The land use data documents recent land uses and maintenance activities, as well as evidence of wind and water erosion that can be observed within the boundaries of the 100 x 6-m plot. These data are used to relate land use and maintenance activities to changes in vegetation and soil erosion rates.

Conditions observed on areas adjacent to, but not within, the plot proper are not checked on the land use form. However, if noteworthy, these conditions may be recorded under the notes column of each table.

The tables storing land use data are LANDUSE, MAINTACT, and EROSEVID. LANDUSE_CODE, MAINT_CODE, and EROS_CODE are validation tables. Codes for each valid type of land use, maintenance activity, and observed erosion are defined in the appropriate validation table. Data is entered into the data tables as codes that are checked by the database against the validation tables. This allows for data integrity and simplified program interfacing. The valid land use, maintenance, and observed erosion categories are:

Military Land Uses

MB	BIVOUAC
MD	DEMOLITION
ME	EXCAVATION
MF	FOOT
MN	NO MILITARY USE
MO	OTHER MILITARY USE
MT	TRACKED
MW	WHEELED

Non-Military Land Uses

NF FORESTRY
NG GRAZING
NGC GRAZING-CATTLE
NGO GRAZING-OTHER
NGS GRAZING-SHEEP
NH HAY
NN NO NON-MILITARY USE
NO OTHER NON-MILITARY USE
NR ROW CROP

Maintenance Activities

BA ACCIDENTAL BURN
BAL ACCIDENTAL BURN > 1 YEAR
BAS ACCIDENTAL BURN < 1 YEAR
BP PRESCRIBED BURN
BPL PRESCRIBED BURN > 1 YEAR
BPS PRESCRIBED BURN < 1 YEAR
C CHEMICAL APPLICATION
M MOWING
N NO MAINTENANCE
O OTHER MAINTENANCE
P PLANTING
S SEEDING
T TILLAGE

Observed Water Erosion

WAA ACTIVE GULLY
WAD DEBRIS DAM
WAN NO WATER EROSION
WAP WATER PEDESTAL PLANT
WAS SHEET/RILL

Observed Wind Erosion

WID DRIFTING
WIN NO WIND EROSION
WIP WIND PEDESTAL PLANT
WIS SCOURING

<u>Table</u>	<u>Purpose</u>
EROSEVID	erosion evidence data from land use data
LANDUSE	military and non-military land use data
MAINTACT	maintenance activity data
EROS_CODE	observed erosion code validation table
LANDUSE_CODE	land use code validation table
MAINT_CODE	maintenance activity code validation table

Vegetation Data

The line transect documents ground cover, canopy cover, and surface disturbance. Data are recorded using a modified point intercept method. Uses of these data include evaluating soil erosion status, military concealment cover, wildlife habitat, botanical composition, and for ground-truthing remotely sensed imagery.

One hundred points are sampled along the line transect beginning at the 0.5-m point and continuing at 1-m intervals along the measuring tape. The 1-m measuring rod is placed plumb to the ground at each point to determine ground cover, surface disturbance, and vertical distribution of vegetation up to 1 m. Canopy cover above 1 m is measured using the telescoping range pole.

Surface Disturbance

If a point has been disturbed, the nature of the disturbance is determined and the appropriate category selected. The categories of disturbance are stored in DISTURB_CODE. A point is considered disturbed if there is physical evidence of disruption of the soil surface or if the vegetation has been obviously crushed at that point. The fact that a site is in poor condition does not constitute evidence of disturbance. With vehicle tracks, the ability to distinguish a general direction of travel is a prerequisite to establishing evidence of disturbance.

Disturbance

N	NO DISTURBANCE
NR	NOT RECORDED
O	OTHER DISTURBANCE
P	PASS
R	ROAD
T	TRAIL
U	UNKNOWN

Disturbance data is entered into the GNDCOVER table under the column DISTURB. To ensure that only defined categories are used, the DISTURB_CODE table contains all valid disturbance categories. This table is a validation table for GNDCOVER, which is enforced through the use of primary and foreign keys.

GNDCOVER	ground data from line transect inventory
DISTURB_CODE	disturbance code validation table

Initial Inventory and Long-term Monitoring Ground Cover

The next data recorded for each point on the line is ground cover. Only material in contact with the ground at the tip of the measuring rod is recorded, i.e., the point at the center of the rod. This data is entered into the GNDCOVER table under the column VEGID. In many instances the data entered here will not be a plant code but one of the valid ground cover categories. However, to make this table compatible with other tables containing plant codes, the column has been named VEGID.

<u>Table</u>	<u>Purpose</u>
GNDCOVER	ground data from line transect inventory

Initial Inventory and Long-term Monitoring Canopy Cover

The vertical distribution and composition of canopy cover is recorded on the line by recording vegetation contacts within each decimeter interval on the 1-m measuring rod as it is held plumb to the ground. For vegetation above 1 m, the rod is replaced by a telescoping range pole.

Canopy cover is recorded in decimeter intervals to a height of 2 m. Above 2 m, it is recorded in 0.5-m intervals up to 8.5 m. Canopy cover contact is recorded only if vegetation appears as though it would be intercepted by the center of the rod or pole. Canopy cover above 8.5 m also is recorded as present if an imaginary extension of the range pole above 8.5 m would contact vegetation.

Only one intercept is recorded per interval. If two or more species or categories contact the rod in the same interval, only the one at the highest point within the interval is recorded. If more than one species is present over 8.5 m, only the topmost species is recorded.

Canopy cover data is stored in the AERCOVER table. Line transect location VEGLOC, height interval VEGHT and cover category VEGID are entered for each observation. Canopy cover above 8.5 m has a VEGHT of 8.6.

<u>Table</u>	<u>Purpose</u>
AERCOVER	aerial data from line transect inventory

Short-term Monitoring Line Transect Data

During a short-term monitoring season, data are gathered on the line transect using the point-intercept method as in the initial inventory, except in lesser detail. At 1-m intervals, beginning at the 0.5-m point, the tip of the 1-m measuring rod is used to determine the presence and type of disturbance. Ground cover is recorded using the valid codes listed here. Plant species identification is not necessary for short-term monitoring. The presence or absence of canopy cover at any height is determined for each point and recorded as shown in the valid aerial cover categories.

Short-term Monitoring Ground Cover Categories

B	BARE GROUND
L	LITTER
M	MICROPHYTE
NR	NOT RECORDED
P	PLANT
R	ROCK
U	UNKNOWN

Short-term Monitoring Canopy Cover Categories

A	ANNUAL
AP	ANNUAL/PERENNIAL
N	NO AERIAL COVER
NR	NOT RECORDED
P	PERENNIAL
U	UNKNOWN AERIAL COVER

Because the short-term monitoring data collection method is an abbreviated version of initial inventory, ground disturbance, ground cover, and canopy cover can be stored in the LINEMON table. Plant species identification is not necessary, so a defined set of categories exists for both ground cover and canopy cover. Ground disturbance uses the same categories defined for the initial inventory. To ensure that only defined categories are used for these data the DISTURB_CODE, GNDCOV_CODE, and AERCOV_CODE tables contain all valid disturbance, ground cover, and canopy cover

categories, respectively. These tables are validation tables for LINEMON and are enforced through the use of primary and foreign keys.

<u>Table</u>	<u>Purpose</u>
LINEMON	line transect monitoring data
AERCOV_CODE	monitoring aerial cover code validation table
DISTURB_CODE	disturbance code validation table
GNDCOV_CODE	monitoring ground cover code validation table

Initial Inventory and Long-term Monitoring Belt Transect Data

The belt transect is intended to characterize species composition, density, and height distribution of woody and succulent vegetation. The belt transect extends the length of the 100-m line transect. Although the belt has a standard width of 6 m (3 m to either side of the line transect), the width may be reduced for high density species. Any adjustments in the belt transect width are noted in the BELTSURV table. In addition, the default belt width and the minimum height used for each plot is recorded.

The locations of all woody plants above a predetermined minimum height are mapped, and the coordinates, species, and height are entered into the BELTTRAN table.

All rooted shrubs and trees are recorded regardless of whether they are live or dead. All cacti, regardless of height, are recorded. Individual plants with heights greater than 8.5 m are in general entered as 8.6 m.

Some woody plants tend to produce multiple stems from a common root system. Although they may appear to be separate plants, these multistemmed plants are recorded as a single individual. For plants that form dense stands by means of root sprouts, adventitious roots, or rhizomes, the entire clump (motte) is regarded as one individual. The beginning and ending line location of the clump are recorded in the BELTTRAN table as CLUMPBEGIN and CLUMPEND. The area of the clump is recorded as CLUMPPAREA. The height of the clump is determined by measuring the tallest stem within the clump.

<u>Table</u>	<u>Purpose</u>
BELTSURV	parameters for inventory and monitoring belt transects
BELTTRAN	belt transect inventory data

Short-term Monitoring Belt Transect Data

Rather than recording the location and height of each woody plant as in the initial inventory, short-term monitoring of the belt transect entails only a tally of each species by 1-m height classes up to 4 m, and a single class for plants higher than 4 m. This data is stored in the BELTMON table.

BELTSURV	parameters for inventory and monitoring belt transects
BELTMON	belt transect monitoring data

Plant Species Information

All vegetation data stored in the database are checked against the master plant species table (PLANTS) in the SPECIES database for valid information. For each valid unique species found in the database corresponding information is placed in the PLNTLIST table by the LCTA user's interface.

<u>Table</u>	<u>Purpose</u>
PLNTLIST	master list cataloging each plant code

Floristic Inventory

A primary goal of the LCTA program is to assemble a complete collection of all vascular plants that occur on an installation and to produce a comprehensive, annotated list of all taxa present, including threatened and endangered species. Three specimens of each taxon are collected. One specimen is accessioned to a public herbarium to serve as a voucher. The remaining two specimens are laminated in plastic with a label and included in a reference collection to be housed at the installation. The laminated specimens can be taken into the field to aid in species identification by LCTA crew and natural resources personnel. Though the majority of taxa are collected in 1 to 3 years by a plant taxonomist contracted specifically for this task, species not yet included in the collection may be added any time by the field crew leader.

Nomenclature and classification conform to the *National List of Scientific Plant Names* (USDA 1982).

Floristic inventory data is stored in the HERBRIUM table. In addition to the many elements in this table, the Federal and state threatened, endangered, and sensitive category (FEDSTAT, STATESTAT) is recorded where appropriate. The FED_STATUS

and STATE STATUS tables contain the valid codes for these fields and are enforced through referential integrity constraints.

<u>Table</u>	<u>Purpose</u>
HERBRIUM	floristic inventory data
FED STATUS	Federal status validation table
STATE STATUS	state T&E status validation table

Wildlife Inventory

A variety of wildlife data may be collected on or near LCTA plots. Only song bird and small mammal data are required as a standard. These taxa are useful as bioindicators and are easy to sample at the scale of the LCTA plot.

Standard wildlife inventories are conducted on a subsample of approximately one-third of the core plots, up to a total of about 60. Core wildlife plots are selected in a stratified random fashion from among all the established core plots to represent the major soil and land cover types in proportion to their occurrence on the installation. This constitutes the minimum sampling required. More core plots are added as necessary to represent all soil and land cover types with at least one wildlife plot.

Birds (Standard)

Birds are censused at each plot using a modified point-count transect technique. Each plot is censused once in the morning and once in the evening (denoted by a.m. or p.m.) by slowly walking the length of the LCTA plot in 6 minutes, recording all birds seen or heard within 100 m of the plot (Line Out). On reaching the end of the plot, the observer stops for 8 minutes and again records all birds seen or heard within 100 m (End Point). The observer then walks back to the starting point in 6 minutes, again recording any birds detected within 100 m of the plot (Line In). All morning censuses are conducted between 0.5 hour before and 4 hours after sunrise on relatively calm, rainless days. The evening census is conducted during the 4 hours prior to sunset. The time of the survey is entered in the BIRDS table under the PERIOD column. The locations of the line from which the observations were taken are entered in the MEASURE PT column as a code. Valid locations are stored in the POINT CODE table, which is a validation table for BIRDS and is enforced through the use of primary and foreign keys. All plot and survey information is entered in the BIRDSURV table.

All birds detected are recorded using standard common names and species codes. Numbers of each species are recorded for each segment of the survey using the codes for mated status. The MATED_STATUS column uses valid codes from the MATED_STATUS_CODE table. This information is used to infer the number of pairs present on the plot. A singing male, male/female pair, or adult accompanied by young indicates one pair present. Presence of additional pairs can be inferred only if additional singing males, male/female pairs, or same sex adults accompanied by young are observed. An individual nonsinging male, lone female, or individual of unknown sex or age indicates presence of the species but may not indicate a second pair. Flyovers of birds not using the plot and other birds observed outside the plot limits are recorded the same as those observed, plus a "Y" is entered in the FLYOVER column. All flyover data should be entered as a new observation with a "Y" in the FLYOVER column.

The field methods suggest that max pair data be recorded as the maximum number of pairs observed among the three segments of the survey. Max pairs information is not entered into the database because it can be derived from the available data in the table. This would be redundant data.

Bird Mated Status Codes

*	Singing male
PR	Adult male/female pair
M	Nonsinging male
F	Female only
U	Unknown sex and age
Y	Young of the year
FL	Flock
C	Combined (all statuses were totaled and entered as one observation)
NR	Not recorded

Measurement Point Codes

LO	Line Out
LI	Line In
EP	End Point
C	Combined (all points were totaled and entered as one observation)
U	Unknown
NR	Not recorded

<u>Table</u>	<u>Purpose</u>
BIRDS	bird data from wildlife inventory
BIRDSURV	table identifying all inventories for birds on each plot
MATED_STATUS_CODE	bird mated status validation table
POINT_CODE	bird data collection line location validation table

Small Mammals (Standard)

Small mammals are surveyed by setting two rows of 20 museum special traps and five rat traps parallel to the long axis of each LCTA plot. Trap stations are spaced approximately 7.5 m apart; trap lines are spaced 30 m apart. Snap traps are baited with a mixture of rolled oats and peanut butter and run for two nights for a total of 100 trap nights per plot. Traps are set during the late afternoon or evening of the first day, checked early the next morning, reset during the late afternoon or evening of the second day, and checked and collected on the following morning.

The MAMMALS table stores data for the standard 100 trap nights using the date of the first night in the RECDATE column. For each method of observations, listed here, the species (VERTID), sex (SEX), method (METHOD), and number (NUM) are recorded. If any retraps are known, this number is entered in the RETRAP column. NUM represents the total number of species, including the number of retraps. The METHODS_CODE and GENDER_CODE tables are validation tables for the METHOD and SEX columns of the MAMMALS table. Referential integrity for these tables is enforced using primary and foreign keys. All plot and survey information is stored in the MAMSURV table.

Gender Codes

M	Male
F	Female
U	Unknown
C	Combined (all genders were totaled and entered as one observation)
NR	Not recorded

Method Codes

O	Observed
S	Signs
T	Trapped
C	Combined (all methods were totaled and entered as one observation)
U	Unknown
NR	Not recorded

<u>Table</u>	<u>Purpose</u>
MAMMALS	mammal data from wildlife inventory
MAMSURV	table identifying all mammal inventories
METHODS_CODE	mammal and herpetologic methods validation table
GENDER_CODE	gender code validation table

Reptiles and Amphibians (Optional)

Reptiles and amphibians are censused using a pitfall trapping array with optional box traps in association with the LCTA transects. The central bucket of each pitfall array is located approximately 75 m from the origin of the LCTA line transect, and at a random azimuth within a 180 degree arc opposite the azimuth of the transect. The array must be in the same soil type and landcover category as the LCTA transect. The 100 m point may be used as the point of origin if necessary to keep the array within the correct soil type and landcover category. The four 5-gallon plastic buckets are buried so the lip is flush with the soil surface. A cover is placed above the bucket, supported by rocks or wood blocks, to provide shade to any trapped animals. Aluminum drift fences 8 to 12 in. high, buried 2 to 3 in. in the ground and held in place by wooden or metal stakes, are used to funnel animals into the buckets. The fence should be painted to blend with surroundings to make it less conspicuous and less prone to disturbance. The fence must overlap the lip of the bucket by about 1 in. to force the animals into the bucket and prevent them from moving around the end of the aluminum.

The HERPS table stores data for the standard 100 trap nights using the date of the first night in the RECDATE column. For each method of observations, listed here, the species (VERTID), sex (SEX), method (METHOD), and number (NUM) are recorded. If any retraps are known, this number is entered in the RETRAP column. NUM represents the total number of species, including the number of retraps. The METHODS_CODE and GENDER_CODE tables are validation tables for the METHOD and SEX columns of the HERPS table. Referential integrity for these tables is enforced using primary and foreign keys. All plot and survey information is stored in the HERPSURV table.

<u>Table</u>	<u>Purpose</u>
HERPS	herpetologic data from wildlife inventory
HERPSURV	table identifying all inventories for amphibians and reptiles on each plot
METHODS_CODE	mammal and herpetologic methods validation table
GENDER_CODE	gender code validation table

Species List

All wildlife data stored in the database are checked against the main wildlife species table (VERTS) in the SPECIES database for valid information. For each valid unique species found in the database, corresponding information is placed in the VERTLIST table by the LCTA user's interface. This information includes order, class, family, species, genus, subspecies, variety, and common name. Refer to the LCTA user's interface manual for details on running this procedure.

<u>Table</u>	<u>Purpose</u>
VERTLIST	master list cataloging each vertebrate code

Climate Data

Climate data is collected from Scott Air Force Base for weather stations on and near LCTA installations. This data is collected as daily values for rain, temperature, and pan evaporation. Information about the weather station is stored in the CLIMATESTATIONS table. To ensure that the weather station information data is known, CLIMATESTATIONS table is a parent table to CLIMATEDATA.

<u>Table</u>	<u>Purpose</u>
CLIMATEDATA	climate data
CLIMATESTATIONS	climate station information

Soil and Topographic Information

Soil Depth Estimation. Soil depth can have a significant effect on plant productivity and botanical composition. Shallow soils are generally less productive, more susceptible to damage, and more difficult to reclaim than deeper soils. An estimate of soil depth is made for each LCTA plot by noting how deep it was possible to drive each of the steel rods into the soil. The average depth is recorded.

Soil Samples. A composite soil sample is taken at each plot. Five small samples are taken approximately 1 m from the line transect at the 0, 25, 50, 75, and 100-m points. All litter is removed from the surface. With a narrow spade or mattock, a small pit approximately 15 cm deep is dug. A vertical slice comprising approximately 0.2 L of soil is taken from the side of each pit, and roots and plant crowns are removed. The samples are combined in a sealable plastic bag, and a double-faced aluminum tag is inscribed with the installation name or abbreviation and plot number. Sealed bags are boxed and shipped to the USDA National Soil Survey Laboratory in Lincoln, NE, for analysis of selected physical and chemical soil characteristics that affect site

erodibility, productivity, and botanical composition. This information is stored in the SOILSMPL table.

Aspect

Aspect, which can influence soil moisture, botanical composition, and vegetation cover, is determined for plots while standing at the 50 m point and estimating the general direction that water would flow across the site. Using a compass, aspect is estimated to the nearest octant. If the average slope is less than 5 percent, aspect is considered unimportant and level is circled on the form. Aspect is placed in the PLOTSURV table under the ASPECT column.

Slope Length and Gradient

Slope length and gradient are measured at the 0, 50, and 100-m points. Slope length is the straight line distance runoff travels across each sample point. It is measured from the point of origin of runoff to a point where a barrier or significant reduction in slope causes overland flow to be diverted into a defined channel or causes suspended sediment to be deposited. Slope length is estimated by pacing the distance between point of origin and point of deposition. Slope gradient is measured with a clinometer to the nearest half percent. Slope length (SLPLEN) and gradient (SLOPE) are stored in the SOILLS table for each location (LOC).

<u>Table</u>	<u>Purpose</u>
PLOTSURV	table identifying all inventories on each plot
SOILLS	plot slope data (used to calculate LS in USLE)
SOILMAST	master soil series table
SOILSMPL	soil sample data from USDA National Soils Survey Laboratory

Supplementary Information

The following tables represent information that does not fall under any of the foregoing categories. The BASALA, ENVCONST, and F_COUNT tables were created to store data that is not part of the standard LCTA data collection. The database has been augmented with the addition of these tables to meet the needs of some installations. The GROUPING table has been added to facilitate grouping data for the purpose of analysis either through the use of the LCTA program or SQL statements. The HISTORY table is meant to hold general information about the installation, data collected, or the database. The INSTMAST table is a master listing for all LCTA installations and acts as a parent table to many of the other data tables.

BASALA	Basal area data
ENVCONST	Environmental constraints
F_COUNT	Optional data from inventory or monitoring
GROUPING	Dynamic table for LCTA front end routines
HISTORY	General informational data
INSTMAST	Master table listing LCTA installations

Summary Data

In database theory, any stored data that is calculated from other data within the database is called derived data. Storing derived data usually is discouraged because it can be obtained from existing data in the database, and storing it adds to the size of the database. Derived data is essentially duplicate data.

Because the LCTA databases hold a great deal of data and many of the analyses take some time to run, summary (derived) data is stored in the database. Also, this summary information can be used to group other data in the database for additional information.

<u>Tables</u>	<u>Purpose</u>
COMMCLASSPLOTSUM	plant community classifications for each plot
EROSION	table for USLE estimations
LANDUSEYEARSUM	land use summary data by year
PCSDPLOTSUM	plant cover, surface disturbance summary data by plot
PCSDYEARSUM	plant cover, surface disturbance summary data by year
PCTTYEARSUM	percent of tolerance (USLE) summary data by year
TACTCONA	tactical concealment summary A
TACTCONB	tactical concealment summary B
TACTCONC	tactical concealment summary C

Validation Tables

Validation tables are used to enforce referential integrity constraints. After these integrity constraints are defined in the database system, by the database administrator, data will be allowed in the child table only if it exists in the parent table. The primary key of the parent table restricts the foreign key of the child table.

<u>Table</u>	<u>Purpose</u>
AERCOV_CODE	monitoring aerial cover code validation table
DISTURB_CODE	disturbance code validation table
EROS_CODE	observed erosion code validation table
EROSEVID	erosion evidence data from land use data
FED_STATUS	Federal status validation table
GENDER_CODE	gender code validation table
GNDCOV_CODE	monitoring ground cover code validation table
LANDUSE	military and nonmilitary land use data
LANDUSE_CODE	land use code validation table
MAINT_CODE	maintenance activity code validation table
MAINTACT	maintenance activity data
MATED_STATUS_CODE	bird mated status validation table
METHODS_CODE	mammal and herpetologic methods validation table
POINT_CODE	bird data collection line location validation table
STATE_STATUS	state T&E status validation table

Relational Constraints

Relational constraints, in this situation referential integrity constraints, will be discussed in this section. The previous section listed the validation tables used to ensure data integrity of the data tables. The actual columns used to link the tables will be presented in this section.

Referential integrity constraints are used to ensure data integrity in a database. These constraints are defined between a parent table and a child table by the use of primary and foreign keys. A parent is defined with a data element or set of elements as a primary key. The primary key is a unique value, or set of values, that constrain the entry of data into the dependent child table. For example, PLOTMAST is a parent table to PLOTSURV with PLOTID as the primary key in PLOTMAST and the foreign key in PLOTSURV. If a particular value for PLOTID does not exist in PLOTMAST, data for that plot cannot be added to the PLOTSURV table.

Other rules exist that can be used to ensure data integrity. These rules include column constraints, check constraints, unique and primary key, and others. The most important column constraint is the NOT NULL rule. This rule forces a value to be entered for a data element (column) before that observation (row) of data is applied to the database. The NOT NULL is specified in the database schema and applied by the database administrator by using SQL statements. This rule is used throughout the LCTA database. Consult the data element listing appendix for elements with the

NOT NULL rule. Check constraints test the rows of a table against a logical expression. Not all database servers utilize this rule, and it currently is not used by the LCTA database. The UNIQUE and PRIMARY KEY rules are important to relational database theory and are somewhat related. The UNIQUE rule ensures that no duplicate values will exist for a column. Unless specifically defined, a column with the UNIQUE rule applied can have only one NULL here. The PRIMARY RULE is used in referential integrity constraints as discussed. Only one primary key can exist for a table, but many columns can make up the primary key. Each column that makes up the primary key must have the UNIQUE and NOT NULL rules applied. The LCTA database uses the primary key and the related foreign key rules extensively; refer to the database schema diagram (Appendix A) for their locations.

Defining referential integrity constraints is done by the database administrator using Data Definition Language (DDL) or SQL statements. Parent tables, child tables, and their linking keys are listed. The DDL or SQL statements are in Appendix D.

<u>Parent Table</u>	<u>Child Table</u>	<u>Joined by</u>
INSTMAST	PLOTMAST	INSTALID
INSTMAST	ENVCONST	INSTALID
INSTMAST	CLIMATESTATIONS	INSTALID
INSTMAST	MAPS	INSTALID
INSTMAST	HISTORY	INSTALID
INSTMAST	EROSION	INSTALID
INSTMAST	COMMCLASSPLOTSUM	INSTALID
INSTMAST	LANDUSEYEARSUM	INSTALID
INSTMAST	PCSDPLOTSUM	INSTALID
INSTMAST	PCSDYEARSUM	INSTALID
INSTMAST	PCTTYEARSUM	INSTALID
INSTMAST	TACTCONA	INSTALID
INSTMAST	BIRDSURV	INSTALID
INSTMAST	HERPSURV	INSTALID
INSTMAST	MAMSURV	INSTALID
PLOTMAST	PLOTMAPS	PLOTID
PLOTMAST	PLOTSURV	INSTALID, PLOTID
PLOTMAST	SOILSMPL	INSTALID, PLOTID
PLOTMAST	EROSION	INSTALID, PLOTID
PLOTMAST	COMMCLASSPLOTSUM	INSTALID, PLOTID
PLOTMAST	PCSDPLOTSUM	INSTALID, PLOTID
PLOTMAST	TACTCONA	INSTALID, PLOTID

PLOTSURV	LANDUSE	INSTALID, PLOTID, RECDATE
PLOTSURV	MAINTACT	INSTALID, PLOTID, RECDATE
PLOTSURV	EROSEVID	INSTALID, PLOTID, RECDATE
PLOTSURV	GNDCOVER	INSTALID, PLOTID, RECDATE
PLOTSURV	AERCOVER	INSTALID, PLOTID, RECDATE
PLOTSURV	BELTSURV	INSTALID, PLOTID, RECDATE
PLOTSURV	BELTTRAN	INSTALID, PLOTID, RECDATE
PLOTSURV	LINEMON	INSTALID, PLOTID, RECDATE
PLOTSURV	BELTMON	INSTALID, PLOTID, RECDATE
PLOTSURV	BASAL_A	INSTALID, PLOTID, RECDATE
PLOTSURV	SOILLS	INSTALID, PLOTID, RECDATE
PLOTSURV	F_COUNT	INSTALID, PLOTID, RECDATE
FED_STATUS	HERBRIUM	FEDSTAT
STATE_STATUS	HERBRIUM	STATESTAT
EROS_CODE	EROSEVID	STATUS
LANDUSE_CODE	LANDUSE	LANDUSE
MAINT_CODE	MAINTACT	MAINTAIN
AERCOV_CODE	LINEMON	AERCOV
DISTURB_CODE	LINEMON, GNDCOVER	DISTURB
GNDCOV_CODE	LINEMON	GNDCOV
CLIMATESTATIONS	CLIMATEDATA	STATION
MATED_STATUS_CODE	BIRDS	MATED_STATUS
POINT_CODE	BIRDS	MEASURE_PT
GENDER_CODE	HERPS, MAMMALS	SEX
METHODS_CODE	HERPS, MAMMALS	METHOD

In the next table the same information is presented in a different format. All child tables, their key elements, and primary and foreign keys are listed. The contributing table is listed for each key element. The LCTA database schema (Appendix A) also can be consulted to understand the referential integrity constraints.

<u>Child Table</u>	<u>Key Elements</u>	<u>Contributing Table</u>
AERCOVER	INSTALID	PLOTSURV
AERCOVER	PLOTID	PLOTSURV
AERCOVER	RECDATE	PLOTSURV
BASAL_A	INSTALID	PLOTSURV
BASAL_A	PLOTID	PLOTSURV

BASAL_A	RECDATE	PLOTSURV
BELTMON	INSTALID	PLOTSURV
BELTMON	PLOTID	PLOTSURV
BELTMON	RECDATE	PLOTSURV
BELTSURV	INSTALID	PLOTSURV
BELTSURV	PLOTID	PLOTSURV
BELTSURV	RECDATE	PLOTSURV
BELTTRAN	INSTALID	PLOTSURV
BELTTRAN	PLOTID	PLOTSURV
BELTTRAN	RECDATE	PLOTSURV
BIRDS	INSTALID	BIRDSURV
BIRDS	MATED_STATUS	MATED_STATUS_CODE
BIRDS	MEASURE_PT	POINT_CODE
BIRDS	PLOTID	BIRDSURV
BIRDS	RECDATE	BIRDSURV
BIRDSURV	INSTALID	INSTALID
BIRDSURV	PLOTID	*
BIRDSURV	RECDATE	*
CLIMATEDATA	INSTALID	CLIMATESTATIONS
CLIMATEDATA	STATION	CLIMATESTATIONS
CLIMATESTATIONS	INSTALID	INSTMAST
CLIMATESTATIONS	STATION	*
COMMCLASSPLOTSUM	INSTALID	INSTMAST
COMMCLASSPLOTSUM	PLOTID	PLOTMAST
ENVCONST	INSTALID	INSTMAST
EROSEVID	INSTALID	PLOTSURV
EROSEVID	PLOTID	PLOTSURV
EROSEVID	RECDATE	PLOTSURV
EROSEVID	STATUS	EROS_CODE
EROSION	INSTALID	INSTMAST
EROSION	PLOTID	PLOTMAST
F_COUNT	INSTALID	PLOTSURV
F_COUNT	PLOTID	PLOTSURV
F_COUNT	RECDATE	PLOTSURV
GNDCOVER	DISTURB	DISTURB_CODE
GNDCOVER	INSTALID	PLOTSURV
GNDCOVER	PLOTID	PLOTSURV
GNDCOVER	RECDATE	PLOTSURV
HERBRIUM	FEDSTAT	FED_STATUS
HERBRIUM	STATESTAT	STATE_STATUS
HERPS	INSTALID	HERPSURV

HERPS	METHOD	METHODS_CODE
HERPS	PLOTID	HERPSURV
HERPS	RECDATE	HERPSURV
HERPS	SEX	GENDER_CODE
HERPSURV	INSTALID	INSTALID
HERPSURV	PLOTID	*
HERPSURV	RECDATE	*
HISTORY	INSTALID	INSTMAST
LANDUSE	INSTALID	PLOTSURV
LANDUSE	LANDUSE	LANDUSE_CODE
LANDUSE	PLOTID	PLOTSURV
LANDUSE	RECDATE	PLOTSURV
LANDUSEYEARSUM	INSTALID	INSTMAST
LINEMON	AERCOV	AERCOV_CODE
LINEMON	DISTURB	DISTURB_CODE
LINEMON	GNDCOV	GNDCOV_CODE
LINEMON	INSTALID	PLOTSURV
LINEMON	PLOTID	PLOTSURV
LINEMON	RECDATE	PLOTSURV
MAINTACT	INSTALID	PLOTSURV
MAINTACT	MAINTAIN	MAINT_CODE
MAINTACT	PLOTID	PLOTSURV
MAINTACT	RECDATE	PLOTSURV
MAMMALS	INSTALID	MAMSURV
MAMMALS	METHOD	METHODS_CODE
MAMMALS	PLOTID	MAMSURV
MAMMALS	RECDATE	MAMSURV
MAMMALS	SEX	GENDER_CODE
MAMSURV	INSTALID	INSTALID
MAMSURV	PLOTID	*
MAMSURV	RECDATE	*
MAPS	INSTALID	INSTMAST
PCSDPLOTSUM	INSTALID	INSTMAST
PCSDPLOTSUM	PLOTID	PLOTMAST
PCSDYEARSUM	INSTALID	INSTMAST
PCTTYEARSUM	INSTALID	INSTMAST
PLOTMAPS	INSTALID	INSTMAST
PLOTMAST	INSTALID	INSTMAST
PLOTSURV	INSTALID	PLOTMAST
PLOTSURV	PLOTID	PLOTMAST
PLOTSURV	RECDATE	*

SOILLS	INSTALID	PLOTSURV
SOILLS	PLOTID	PLOTSURV
SOILLS	RECDATE	PLOTSURV
TACTCONA	INSTALID	INSTMAST
TACTCONA	PLOTID	PLOTMAST

* Denotes that there is no contributing table. This element has been defined as a primary key to be passed to other tables as a foreign key. In other words, the table becomes the initial contributing table for that primary key.

Legacy Components

Legacy components refer to data elements, entities, or relations that do not conform to the new proposed database standards. These components persist either because of operational considerations or the likelihood of the loss of data. The components that can be categorized as legacy components follow.

When possible, relational theory and rules have been used in this design of the LCTA database to ensure data integrity; the most important of these is referential integrity constraints. A few exceptions exist, primarily because of operational considerations. These exceptions include the SOILMAST, PLNTLIST, and VERTLIST tables.

The SOILMAST table stores information for each unique soil series found on LCTA plots. The SOILSER element contains the code used to refer to a soil series; it is found in both the PLOTMAST and SOILMAST tables. By using a relational join, SQL query, soil series information for each plot can be obtained from the PLOTMAST and SOILMAST tables. To ensure that only valid soil series codes are entered for each plot in the PLOTMAST table, a referential constraint between SOILMAST (parent table) and PLOTMAST (child table) could be defined. However, the issue is complicated because other plot information found in the PLOTMAST table is collected in the field and added to the database before the soil series is identified. In practice the data usually is added to the database, and the user will identify the soil series for each plot and update the database at a later time. This restricts the use of referential integrity constraints for the SOILMAST table.

The PLNTLIST and VERTLIST tables contain unique plant and wildlife information found on LCTA plots. The LCTA program is used to scan all plant and wildlife data tables and insert the species information for those valid data into the appropriate table. The PLNTLIST and VERTLIST tables are populated after the data tables. In some situations a species cannot be identified in the field and must be given a temporary code. The temporary code is changed to a known code when the species is identified. These operational considerations eliminate the possibility of defining the PLNTLIST and VERTLIST tables as parent tables to the data tables.

3 Database Schema Updates

This section will cover changes to the database schema as released with version 1.0 of the user's interface. These changes have been made to enhance the database usability, ensure further data integrity, and increase metadata.

New Tables

The format for this section is:

TABLE NAME

Description of the data stored in the table

Reason for adding table to the database

AERCOV_CODE

Short-term monitoring aerial cover code validation table

Validation table for LINEMON, element AERCOV

BIRDSURV

Table identifying all inventories for bird data

Plot survey information for bird data

CLIMATEDATA

Climate data

Climate data for analysis purposes

CLIMATESTATIONS

Climate station information

Validation table for CLIMATEDATA, element STATION

DISTURB_CODE

Disturbance code validation table

Validation table for GNDCOVER and LINEMON, element DISTURB

ENVCONST*Environmental constraints*

Data from installation environmental constraint surveys

EROS_CODE*Observed erosion evidence code validation table*

Validation table for EROSEVID, element STATUS

FED_STATUS*Federal status validation table*

Validation table for HERBRIUM, element FEDSTAT

GENDER_CODE*Wildlife gender code validation table*

Validation table for HERPS and MAMMALS, element SEX

GNDCOV_CODE*Short-term monitoring ground cover code validation table*

Validation table for LINEMON, element GNDCOV

GROUPING*Dynamic table for LCTA front end routines (user defined attributes)*

Used by the update front table to group summaries

HERPSURV*Table identifying all inventories for amphibians and reptiles on each plot*

Plot survey data for herpetologic data

LANDUSE_CODE*Land use code validation table*

Validation table for LANDUSE, element LANDUSE

MAINT_CODE*Maintenance activity code validation table*

Validation table for MAINTACT, element MAINTAIN

MAMSURV*Table identifying all inventories for mammals on each plot*

Plot survey data for mammals data

MAPS

Installation geographic information system maps used to display LCTA data

Allows storing of geographic information system maps in the database

MATED_STATUS_CODE

Bird mated status validation table

Validation table for BIRDS, element MATED_STATUS

METHODS_CODE

Mammal and herpetologic trapping methods validation table

Validation table for HERPS and MAMMALS, element METHOD

PLOTMAPS

Map and photo images for each plot

Allows storing of plot location maps

POINT_CODE

Bird data collection line location validation table

Validation table for BIRDS, element MEASURE_PT

STATE_STATUS

State Threatened and Endangered (T&E) status validation table

Validation table for HERBRIUM, element STATESTAT

Modified Tables

The format for this section is:

TABLE NAME

Description of the data stored in the table

Reason for changing the table

BIRDS

Bird data from wildlife inventory

Changed to reflect data as it is collected

HERBRIUM

Floristic Inventory data

Changed to reflect data as it is recorded

HERPS

Herpetologic data from wildlife inventory

Changed to reflect data as it is collected

MAMMALS

Mammal data from wildlife inventory

Changed to reflect data as it is collected

Discontinued Tables

The tables in this section were dropped because they no longer are used or the new functionality of the user's interface does not require them.

WILDSURV

PLOTTASK

TCAPCCSUM

TCBPCCSUM

TCCPCCSUM

PCSDFUNCTPLOTSUM

PCSDPCCFINCTSUM

USLEPCCSUM

Modified Data

This section lists the tables and their data elements that have changed data. In all of these tables, data have been changed from text string to a shorter text code. This makes the use of validation tables easier and enhances data integrity and data use. The format for this section is:

TABLE NAME

ELEMENT changed

LANDUSE

LANDUSE

G37

EROSEVID

STATUS

MAINTACT

MAINTAIN

4 Database Migration Strategy

The following is a series of SQL statements that will convert an existing LCTA database to the database schema described in this document. These commands are presented in SQLBase format and must be executed in the order presented to ensure proper operation. These statements try to account for all possible errors that may be encountered. However, some difficulty may be encountered during this migration strategy.

REMARK

\

DROP TABLES NO LONGER USED

/

DROP TABLE WILDSURV;

DROP TABLE PLOTTASK;

DROP TABLE TCAPCCSUM;

DROP TABLE TCBPCCSUM;

DROP TABLE TCCPCCSUM;

DROP TABLE PCSDFUNCTPLOTSUM;

DROP TABLE PCSDPCCFUNCTSUM;

DROP TABLE USLEPCCSUM;

REMARK

\

RENAME HERBRIUM TABLE TO SAVE DATA INSTALLATION MAY HAVE ENTERED

/

ALTER TABLE HERBRIUM RENAME TABLE HERBOLD;

REMARK

\

MODIFY INSTALID IN PLOTMAST AND PLOTSURV FOR
NOT NULL FOR PRIMARY KEY

/

ALTER TABLE PLOTMAST MODIFY INSTALID NOT NULL;

ALTER TABLE PLOTSURV MODIFY INSTALID NOT NULL;

REMARK

\

UPDATE INSTALID IN ALL TABLES HAVING INSTALID AS KEY
REPLACE 'JUS' WITH APPROPRIATE ID

/

UPDATE PLOTMAST SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE PLOTSURV SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE MAINTACT SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE EROSEVID SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE LANDUSE SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE AERCOVER SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE GNDCOVER SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE LINEMON SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE BELTTRAN SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE BELTMON SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE BELTSURV SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE F_COUNT SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE SOILS SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE BASALA SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE HISTORY SET INSTALID = 'JUS' WHERE INSTALID IS NOT NULL;
UPDATE GROUPING SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE PLOTMAPS SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE SOILSMPL SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE CLIMATESTATIONS SET INSTALID = 'JUS' WHERE INSTALID IS NOT NULL;
UPDATE CLIMATEDATA SET INSTALID = 'JUS' WHERE INSTALID IS NOT NULL;
UPDATE MAPS SET INSTALID = 'JUS' WHERE INSTALID IS NOT NULL;
UPDATE ENVCONST SET INSTALID = 'JUS' WHERE INSTALID IS NOT NULL;
UPDATE BIRDSURV SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE MAMSURV SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE HERPSURV SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE BIRDS SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE MAMMALS SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE HERPS SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE HERBRIUM SET INSTALID = 'JUS' WHERE PLOTID IS NOT NULL;
UPDATE PCTTYEAR SET INSTALID = 'JUS' WHERE INSTALID IS NOT NULL;
UPDATE TACTCONA SET INSTALID = 'JUS' WHERE INSTALID IS NOT NULL;
UPDATE PCSDPLOTSUM SET INSTALID = 'JUS' WHERE INSTALID IS NOT NULL;
UPDATE EROSION SET INSTALID = 'JUS' WHERE INSTALID IS NOT NULL;
UPDATE PCSDYEARSUM SET INSTALID = 'JUS' WHERE INSTALID IS NOT NULL;
UPDATE COMMCLASSPLOTSUM SET INSTALID = 'JUS' WHERE INSTALID IS NOT NULL;
UPDATE LANDUSEYEARSUM SET INSTALID = 'JUS' WHERE INSTALID IS NOT NULL;

REMARK

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DROP EXISTING INDEXES

/

DROP INDEX INST_ID;
DROP INDEX PBSYSPBC_IDX;
DROP INDEX PBSYSPBE_IDX;
DROP INDEX PBSYSPBF_IDX;
DROP INDEX PBSYSPBT_IDX;
DROP INDEX PBSYSPBV_IDX;
DROP INDEX PL_VEGID;
DROP INDEX PM_PLOTDATE;
DROP INDEX PS_PLOTDATE;
DROP INDEX QST320102;

REMARK

\

DROP EXISTING KEYS

/

ALTER TABLE INSTMAST DROP PRIMARY KEY;
ALTER TABLE PLOTMAST DROP PRIMARY KEY;
ALTER TABLE PLOTSURV DROP PRIMARY KEY;

REMARK

\

CREATE NEW TABLES

/

CREATE TABLE ENVCONST (
 INSTALID CHAR (3) NOT NULL,
 CASENO INTEGER,
 UNITLONG VARCHAR,
 RESTRAINT LONG VARCHAR,
 IMPACT LONG VARCHAR,
 REALISM LONG VARCHAR,
 MITIGATION LONG VARCHAR,
 RESEARCH LONG VARCHAR,
 RECDATE DATE NOT NULL,
 UPDATENO INTEGER
);

CREATE TABLE CLIMATEDATA (

INSTALID	CHAR (3) NOT NULL,
STATION	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
RAIN	FLOAT NOT NULL,
TEMPMIN	INTEGER,
TEMPMAX	INTEGER,
PANEVAP	FLOAT

CREATE TABLE CLIMATESTATIONS (

INSTALID	CHAR (3) NOT NULL,
STATION	INTEGER NOT NULL,
STATIONNAME	VARCHAR (130) NOT NULL,
DMCE	INTEGER,
DMCN	INTEGER,
ZONE	INTEGER,
STATION_COMMENT	VARCHAR (100)

CREATE TABLE GROUPING (

PLOTID	INTEGER NOT NULL,
INSTALID	CHAR (3) NOT NULL

CREATE TABLE MAPS (

INSTALID	CHAR (3) NOT NULL,
MAPNAME	VARCHAR (32) NOT NULL,
DMCELL	INTEGER NOT NULL,
DMCETR	INTEGER NOT NULL,
DMCNLL	INTEGER NOT NULL,
DMCNTR	INTEGER NOT NULL,
MAP	LONG VARCHAR NOT NULL

CREATE TABLE PLOTMAPS (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
GENMAP	LONG VARCHAR,
LOCMAP	LONG VARCHAR,
MISCMAP	LONG VARCHAR,
PHOTOS	LONG VARCHAR

CREATE TABLE FED_STATUS (

FEDSTAT	CHAR (6) NOT NULL,
FEDSTAT_DEF	VARCHAR (50) NOT NULL,
FEDSTAT_NOTE	VARCHAR (100)

);

CREATE TABLE STATE_STATUS (

STATESTAT	CHAR (6) NOT NULL,
STATESTAT_DEF	VARCHAR (50) NOT NULL,
STATESTAT_NOTE	VARCHAR (100)

);

CREATE TABLE HERBRIUM (

INSTALID	CHAR (3) NOT NULL,
VEGID	CHAR (8),
FAMILY	CHAR (20),
GENUS	CHAR (20),
SPECIES	CHAR (35),
BAUTHOR	VARCHAR (150),
VAR_SSP	CHAR (35),
VARAUTH	VARCHAR (150),
SYNGENUS	CHAR (20),
SYNSPP	CHAR (35),
SYNAUTH	VARCHAR (150),
SYNVAR_SSP	CHAR (35),
SYNVARAUTH	VARCHAR (150),
COMMON	CHAR (40),
COLLNO	INTEGER NOT NULL,
COLLDATE	DATE,
COLLECTOR	VARCHAR (70),
DETERMIN	CHAR (20),
LOCALITY	VARCHAR (224),
COUNTY	VARCHAR (30),
DMCE	INTEGER,
DMCN	INTEGER,
ELEV	INTEGER,
ASSOSPP	VARCHAR (150),
SOILTOPO	VARCHAR (150),
HABIT	CHAR (6),
ABUNDANCE	INTEGER,
FEDSTAT	CHAR (6) NOT NULL,
STATESTAT	CHAR (6) NOT NULL,
COMMENTS	VARCHAR (175)

);

REMARK

\

CHANGE WILDLIFE TABLES TO NEW STANDARD

/

CREATE TABLE BIRDSURV (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
PLOTTYPE	CHAR (8),
COLLECTOR	VARCHAR (70),
CLOUD_COVER	INTEGER,
WIND	INTEGER,
TEMP	INTEGER,
BIRDNOTE	VARCHAR (100)

CREATE TABLE GENDER_CODE

(SEX	CHAR(1) NOT NULL,
SEX_DEF	CHAR(35) NOT NULL,
SEX_NOTE	VARCHAR(100));

CREATE TABLE HERPSURV (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
PLOTTYPE	CHAR (8),
COLLECTOR	VARCHAR (70),
AZIMUTH	REAL,
LOC	INTEGER,
TEMPMAX	INTEGER,
TEMPMIN	INTEGER,
CLOUD_COVER	INTEGER,
WIND	INTEGER,
HERPNOTE	VARCHAR (100)

CREATE TABLE MATED_STATUS_CODE (

MATED_STATUS	CHAR (2) NOT NULL,
MSTATUS_DEF	CHAR (35) NOT NULL,
MSTATUS_NOTE	VARCHAR (100)

CREATE TABLE MAMSURV

(INSTALID	CHAR(3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
PLOTTYPE	CHAR(4),
COLLECTORS	CHAR(35),
TRAPS	CHAR(25),
TRAPNIGHTS	INTEGER,
BAITS	CHAR(25),
TEMP_HIGH	INTEGER,
TEMP_LOW	INTEGER,
CLOUD_COVER	INTEGER,
PRECIP	INTEGER,
MAMNOTE	VARCHAR(100));

CREATE TABLE METHODS_CODE

(METHOD	CHAR(3) NOT NULL,
METHOD_DEF	CHAR(35) NOT NULL,
METHOD_NOTE	VARCHAR(100));

CREATE TABLE POINT_CODE

(MEASURE_PT	CHAR(2) NOT NULL,
POINT_DEF	CHAR(35) NOT NULL,
POINT_NOTE	VARCHAR(100));

INSERT INTO BIRDSURV (INSTALID,PLOTID,RECDATE) SELECT DISTINCT
INSTALID,PLOTID,RECDATE FROM BIRDS;

DELETE FROM BIRDS WHERE VERTID IS NULL;

ALTER TABLE BIRDS RENAME TOTAL NUM;

DELETE FROM BIRDS WHERE NUM IS NULL;

ALTER TABLE BIRDS MODIFY INSTALID NOT NULL;

ALTER TABLE BIRDS MODIFY VERTID NOT NULL;

ALTER TABLE BIRDS MODIFY NUM NOT NULL;

ALTER TABLE BIRDS ADD MATED_STATUS CHAR(8);

ALTER TABLE BIRDS ADD MEASURE_PT CHAR(2);

UPDATE BIRDS SET MATED_STATUS = 'C' WHERE MATED_STATUS IS NULL;

UPDATE BIRDS SET MEASURE_PT = 'C' WHERE MEASURE_PT IS NULL;

ALTER TABLE BIRDS MODIFY MATED_STATUS NOT NULL;
ALTER TABLE BIRDS MODIFY MEASURE_PT NOT NULL;

INSERT INTO MAMSURV (INSTALID,PLOTID,RECDATE) SELECT DISTINCT
INSTALID,PLOTID,RECDATE FROM MAMMALS;
DELETE FROM MAMMALS WHERE VERTID IS NULL;
ALTER TABLE MAMMALS RENAME TOTAL NUM;
DELETE FROM MAMMALS WHERE NUM IS NULL;
UPDATE MAMMALS SET METHOD = 'U' WHERE METHOD IS NULL;

ALTER TABLE MAMMALS MODIFY INSTALID NOT NULL;
ALTER TABLE MAMMALS MODIFY VERTID NOT NULL;
ALTER TABLE MAMMALS MODIFY NUM NOT NULL;
ALTER TABLE MAMMALS MODIFY METHOD NOT NULL;

ALTER TABLE MAMMALS ADD SEX CHAR(1);
ALTER TABLE MAMMALS ADD RETRAP INTEGER;

UPDATE MAMMALS SET SEX = 'C' WHERE SEX IS NULL;

ALTER TABLE MAMMALS MODIFY SEX NOT NULL;
INSERT INTO HERPSURV (INSTALID,PLOTID,RECDATE) SELECT DISTINCT
INSTALID,PLOTID,RECDATE FROM HERPS;
DELETE FROM HERPS WHERE VERTID IS NULL;
ALTER TABLE HERPS RENAME TOTAL NUM;
DELETE FROM HERPS WHERE NUM IS NULL;
UPDATE HERPS SET METHOD = 'U' WHERE METHOD IS NULL;

ALTER TABLE HERPS MODIFY INSTALID NOT NULL;
ALTER TABLE HERPS MODIFY VERTID NOT NULL;
ALTER TABLE HERPS MODIFY NUM NOT NULL;
ALTER TABLE HERPS MODIFY METHOD NOT NULL;

ALTER TABLE HERPS ADD SEX CHAR(1);
ALTER TABLE HERPS ADD RETRAP INTEGER;

UPDATE HERPS SET SEX = 'C' WHERE SEX IS NULL;

ALTER TABLE HERPS MODIFY SEX NOT NULL;

INSERT INTO MATED_STATUS_CODE VALUES(

:1,

:2,

:3)

\

\$DATATYPES CHARACTER, CHARACTER, CHARACTER"

"*", "SINGING MALE", ""

"PR", "ADULT MALE/FEMALE PAIR", ""

"M", "NONSINGING MALE", ""

"F", "FEMALE ONLY", ""

"U", "UNKNOWN SEX AND AGE", ""

"Y", "YOUNG OF THE YEAR", ""

"FL", "FLOCK", ""

"C", "COMBINED", "ALL STATUSES WERE TOTALED AND ENTERED AS ONE
OBSERVATION"

"NR", "NOT RECORDED", ""

/

INSERT INTO POINT_CODE VALUES(

:1,

:2,

:3)

\

\$DATATYPES CHARACTER, CHARACTER, CHARACTER

"LO", "LINE OUT", ""

"LI", "LINE IN", ""

"EP", "END POINT", ""

"C", "COMBINED", "ALL POINTS WERE TOTALED AND ENTERED AS ONE OBSERVATION"

"U", "UNKNOWN", ""

"NR", "NOT RECORDED", ""

/

INSERT INTO GENDER_CODE VALUES(

:1,

:2,

:3)

\

\$DATATYPES CHARACTER, CHARACTER, CHARACTER

"M", "MALE", ""

"F", "FEMALE", ""

"U", "UNKNOWN GENDER", ""

"C", "COMBINED", "ALL GENDERS WERE TOTALED AND ENTERED AS ONE OBSERVATION"

"N", "NOT RECORDED", ""

/

INSERT INTO METHODS_CODE VALUES(

:1,

:2,

:3)

\

\$DATATYPES CHARACTER,CHARACTER,CHARACTER

"O","OBSERVED", ""

"S","SIGNS", ""

"T","TRAPPED", ""

"C","COMBINED","ALL METHODS WERE TOTALED AND ENTERED AS ONE OBSERVATION"

"U","UNKNOWN", ""

"NR","NOT RECORDED", ""

/

REMARK

\

TEST TO MAKE SURE COLUMNS ARE CORRECTLY NAMED

USED IF DATABASE HAS BEEN PARTIALLY UPDATED

/

ALTER TABLE BIRDSURV RENAME OBSERVER COLLECTORS;

ALTER TABLE HERPSURV RENAME SURVEYOR COLLECTORS;

ALTER TABLE MATED_STATUS_CODE RENAME STATUS_DEF MSTATUS_DEF;

ALTER TABLE MATED_STATUS_CODE RENAME STATUS_NOTE MSTATUS_NOTE;

ALTER TABLE HERPSURV RENAME SURVEYOR COLLECTORS;

REMARK

\

CREATE VALIDATION TABLES FOR

LANDUSE,MAINTACT,EROSEVID,LINEMON,GNDCOVER

AND LOAD VALIDATION DATA

/

CREATE TABLE AERCOV_CODE (

 AERCOV CHAR (2) NOT NULL,

 AERCOV_DEF CHAR (35) NOT NULL,

 AERCOV_NOTE VARCHAR (100))

/

INSERT INTO AERCOV_CODE VALUES(

:1,

:2,

:3)

\

\$DATATYPES CHARACTER,CHARACTER,CHARACTER

"N","NO AERIAL COVER","NO CANOPY COVER ABOVE THE POINT",

"A","ANNUAL","ONLY ANNUAL COVER",

"P","PERENNIAL","ONLY PERENNIAL COVER",
 "AP","ANNUAL/PERENNIAL","BOTH ANNUAL AND PERENNIAL COVER",
 "U","UNKNOWN AERIAL COVER","USUALLY USED WHEN CONVERTING OLD DATA",
 "NR","NOT RECORDED","NO CANOPY COVER VALUE WAS ENTERED",
 "L","LITTER","LITTER FOUND AT AERIAL HIT",
 /

```
CREATE TABLE DISTURB_CODE (
    DISTURB          CHAR (2) NOT NULL,
    DISTURB_DEF      CHAR (35) NOT NULL,
    DISTURB_NOTE     VARCHAR (100))
```

```
/
INSERT INTO DISTURB_CODE VALUES(
```

```
:1,
```

```
:2,
```

```
:3)
```

```
\
```

```
$DATATYPES CHARACTER,CHARACTER,CHARACTER
```

"N","NO DISTURBANCE","NO EVIDENCE OF PHYSICAL DISTURBANCE TO THE SOIL
 SURFACE OR CRUSHED VEGETATION",

"R","ROAD","PERMENANT OR SEMIPERMANENT TRAFFIC ROUTE RECEIVING
 PERIODIC MAINTENANCE",

"T","TRAIL","SEMIPERMANENT TRAFFIC ROUTE RECEIVING NO MAINTENANCE",

"P","PASS","A RANDOM VEHICLE TRACK THAT DOES NOT FOLLOW AN ESTABLISHED
 TRAFFIC PATTERN",

"O","OTHER DISTURBANCE","EVIDENCE OF SOIL DISTURBANCE FROM
 NONVEHICULAR SOURCES SUCH AS EXCAVATION, DEMOLITION,BIVOUAC,ETC.",

"PO","PASS/OTHER","A RANDOM VEHICLE TRACK WITH OTHER VISIBLE DISTURBANCE",

"TO","TRAIL/OTHER","SEMIPERMANENT TRAFFIC ROUTE RECEIVING NO
 MAINTENANCE WITH OTHER VISIBLE DISTURBANCE",

"NR","NOT RECORDED","NO DISTURBANCE WAS RECORDED (NO DATA COLLECTED)",

"U","UNKNOWN","UNKNOWN DISTURBANCE (USUALLY USED WHEN CONVERTING
 OLD DATA)",

```
/
```

```
CREATE TABLE EROS_CODE (
    STATUS          CHAR (16) NOT NULL,
    STATUS_DEF      CHAR (35) NOT NULL,
    STATUS_NOTE     VARCHAR (100))
```

```
/
```

```
INSERT INTO EROS_CODE VALUES(
```

```
:1,
```

```
:2,
```

```
:3)
```

```
\
```

```
$DATATYPES CHARACTER,CHARACTER,CHARACTER
```

"WAA","ACTIVE GULLY","",

```

"WAD","DEBRIS DAM","",
"WAN","NO WATER EROSION","",
"WAP","WATER PEDESTAL PLANT","",
"WAS","SHEET/RILL","",
"WID","DRIFTING","",
"WIN","NO WIND EROSION","",
"WIP","WIND PEDESTAL PLANT","",
"WIS","SCOURING","",
/

```

```

CREATE TABLE GNDCOV_CODE (
    GNDCOV          CHAR (2) NOT NULL,
    GNDCOV_DEF      CHAR (35) NOT NULL,
    GNDCOV_NOTE     VARCHAR (100))
/

```

```

INSERT INTO GNDCOV_CODE VALUES(

```

```

:1,
:2,
:3)
\

```

```

$DATATYPES CHARACTER,CHARACTER,CHARACTER

```

```

"B","BARE GROUND","EXPOSED SOIL",
"R","ROCK","ANY ROCK OR GRAVEL >2MM",
"L","LITTER","ANY DETACHED PLANT PART",
"P","PLANT","ANY ATTACHED PART OF ROOTED VASCULAR PLANT",
"M","MICROPHYTE","ANY MOSS, LICHEN OR ALGAE",
"U","UNKNOWN","UNKNOWN GROUND COVER (USUALLY USED WHEN CONVERTING
OLD DATA)",
"NR","NOT RECORDED","NO GROUND COVER VALUE ENTERED",
/

```

```

CREATE TABLE LANDUSE_CODE (
    LANDUSE          CHAR (16) NOT NULL,
    LANDUSE_DEF      CHAR (35) NOT NULL,
    LANDUSE_NOTE     VARCHAR (100))
/

```

```

INSERT INTO LANDUSE_CODE VALUES(

```

```

:1,
:2,
:3)
\

```

```

$DATATYPES CHARACTER,CHARACTER,CHARACTER

```

```

"MD","DEMOLITION","",
"NGO","GRAZING-OTHER","",
"NGS","GRAZING-SHEEP","",
"MF","FOOT","",
"NGC","GRAZING-CATTLE","",

```

```

"NN","NO NON-MILITARY USE","",
"ME","EXCAVATION","",
"MT","TRACKED","",
"NF","FORESTRY","",
"MW","WHEELED","",
"NH","HAY","",
"MN","NO MILITARY USE","",
"MO","OTHER MILITARY USE","",
"MB","BIVOUAC","",
"NO","OTHER NON-MILITARY USE","",
"NR","ROW CROP","",
"NG","GRAZING","GRAZING OF UNKNOWN TYPE",

```

```

/
CREATE TABLE MAINT_CODE (
    MAINTAIN          CHAR (16) NOT NULL,
    MAINTAIN_DEF      CHAR (35) NOT NULL,
    MAINTAIN_NOTE     VARCHAR (100))

```

```

/
INSERT INTO MAINT_CODE VALUES(
:1,
:2,
:3)
\
$DATATYPES CHARACTER,CHARACTER,CHARACTER
"MABA","ACCIDENTAL BURN","",
"MABAL","ACCIDENTAL BURN > 1 YEAR","",
"MABAS","ACCIDENTAL BURN < 1 YEAR","",
"MABP","PRESCRIBED BURN","",
"MABPL","PRESCRIBED BURN > 1 YEAR","",
"MABPS","PRESCRIBED BURN < 1 YEAR","",
"MAC","CHEMICAL APPLICATION","",
"MAM","MOWING","",
"MAN","NO MAINTENANCE","",
"MAO","OTHER MAINTENANCE","",
"MAP","PLANTING","",
"MAS","SEEDING","",
"MAT","TILLAGE","",

```

```

/
REMARK

```

```

\
CHANGE LANDUSE,MAINTACT,EROSEVID,LINEMON,GNDCOVER DATA
TO NEW STANDARD

```

```

/

```


UPDATE MAINTACT SET MAINTAIN = 'MAS' WHERE MAINTAIN = 'SEEDING';
UPDATE MAINTACT SET MAINTAIN = 'MAS' WHERE MAINTAIN = 'SEEDINGS';
UPDATE MAINTACT SET MAINTAIN = 'MAT' WHERE MAINTAIN = 'TILLAGE';
UPDATE MAINTACT SET MAINTAIN = 'MAT' WHERE MAINTAIN = 'TILLAGE';
UPDATE LANDUSE SET LANDUSE = 'MB' WHERE LANDUSE = 'BIVOUAC';
UPDATE LANDUSE SET LANDUSE = 'MB' WHERE LANDUSE = 'BIVOUAC';
UPDATE LANDUSE SET LANDUSE = 'MB' WHERE LANDUSE = 'BIVOUAC';
UPDATE LANDUSE SET LANDUSE = 'MD' WHERE LANDUSE = 'DEMOLITION';
UPDATE LANDUSE SET LANDUSE = 'MD' WHERE LANDUSE = 'DEMOLITION';
UPDATE LANDUSE SET LANDUSE = 'ME' WHERE LANDUSE = 'EXCAVATION';
UPDATE LANDUSE SET LANDUSE = 'ME' WHERE LANDUSE = 'EXCAVATION';
UPDATE LANDUSE SET LANDUSE = 'MF' WHERE LANDUSE = 'FOOT';
UPDATE LANDUSE SET LANDUSE = 'MF' WHERE LANDUSE = 'FOOT';
UPDATE LANDUSE SET LANDUSE = 'MF' WHERE LANDUSE = 'FOOT';
UPDATE LANDUSE SET LANDUSE = 'MN' WHERE LANDUSE = '?';
UPDATE LANDUSE SET LANDUSE = 'MN' WHERE LANDUSE = 'NO MIL.';
UPDATE LANDUSE SET LANDUSE = 'MN' WHERE LANDUSE = 'NO MIL.';
UPDATE LANDUSE SET LANDUSE = 'MN' WHERE LANDUSE = 'NO MIL.';
UPDATE LANDUSE SET LANDUSE = 'MO' WHERE LANDUSE = 'OTHER';
UPDATE LANDUSE SET LANDUSE = 'MO' WHERE LANDUSE = 'OTHER';
UPDATE LANDUSE SET LANDUSE = 'MO' WHERE LANDUSE = 'OTHER MIL.';
UPDATE LANDUSE SET LANDUSE = 'MO' WHERE LANDUSE = 'OTHER MIL.';
UPDATE LANDUSE SET LANDUSE = 'MO' WHERE LANDUSE = 'OTHER MIL. USE';
UPDATE LANDUSE SET LANDUSE = 'MO' WHERE LANDUSE = 'OTHER MIL.';
UPDATE LANDUSE SET LANDUSE = 'MT' WHERE LANDUSE = 'TRACKED';
UPDATE LANDUSE SET LANDUSE = 'MT' WHERE LANDUSE = 'TRACKED';
UPDATE LANDUSE SET LANDUSE = 'MT' WHERE LANDUSE = 'TRACKED';
UPDATE LANDUSE SET LANDUSE = 'MW' WHERE LANDUSE = 'WHEELED';
UPDATE LANDUSE SET LANDUSE = 'MW' WHERE LANDUSE = 'WHEELED';
UPDATE LANDUSE SET LANDUSE = 'MW' WHERE LANDUSE = 'WHEELED';
UPDATE LANDUSE SET LANDUSE = 'NF' WHERE LANDUSE = 'FORESTRY';
UPDATE LANDUSE SET LANDUSE = 'NF' WHERE LANDUSE = 'FORESTRY';
UPDATE LANDUSE SET LANDUSE = 'NF' WHERE LANDUSE = 'FORESTRY';
UPDATE LANDUSE SET LANDUSE = 'NG' WHERE LANDUSE = 'GRAZING';
UPDATE LANDUSE SET LANDUSE = 'NGC' WHERE LANDUSE = 'GRAZING-CATTLE';
UPDATE LANDUSE SET LANDUSE = 'NGC' WHERE LANDUSE = 'GRAZING-CATTLE';
UPDATE LANDUSE SET LANDUSE = 'NGC' WHERE LANDUSE = 'GRAZING-CATTLE';
UPDATE LANDUSE SET LANDUSE = 'NGO' WHERE LANDUSE = 'GRAZING-OTHER';
UPDATE LANDUSE SET LANDUSE = 'NGO' WHERE LANDUSE = 'GRAZING-OTHER';
UPDATE LANDUSE SET LANDUSE = 'NGS' WHERE LANDUSE = 'GRAZING-SHEEP';
UPDATE LANDUSE SET LANDUSE = 'NH' WHERE LANDUSE = 'HAY';
UPDATE LANDUSE SET LANDUSE = 'NN' WHERE LANDUSE = 'NO NON-MIL.';
UPDATE LANDUSE SET LANDUSE = 'NN' WHERE LANDUSE = 'NO NON-MIL.';
UPDATE LANDUSE SET LANDUSE = 'NN' WHERE LANDUSE = 'NO NONMIL.';
UPDATE LANDUSE SET LANDUSE = 'NN' WHERE LANDUSE = 'NO NON-MIL.';

UPDATE LANDUSE SET LANDUSE = 'NN' WHERE LANDUSE = 'NO MIL. USE';
UPDATE LANDUSE SET LANDUSE = 'NO' WHERE LANDUSE = 'OTHER NON-MIL';
UPDATE LANDUSE SET LANDUSE = 'NO' WHERE LANDUSE = 'OTHER NON-MIL';
UPDATE LANDUSE SET LANDUSE = 'NO' WHERE LANDUSE = 'OTHER NON-MIL.';
UPDATE LANDUSE SET LANDUSE = 'NO' WHERE LANDUSE = 'OTHER NONMIL.';
UPDATE LANDUSE SET LANDUSE = 'NO' WHERE LANDUSE = 'OTHER NON-MIL.';
UPDATE LANDUSE SET LANDUSE = 'NR' WHERE LANDUSE = 'CROP';
UPDATE LANDUSE SET LANDUSE = 'NR' WHERE LANDUSE = 'ROW CROP';
UPDATE EROSEVID SET STATUS = 'WAA' WHERE STATUS = 'ACTIVE GULLY';
UPDATE EROSEVID SET STATUS = 'WAA' WHERE STATUS = 'ACTIVE GULLY';
UPDATE EROSEVID SET STATUS = 'WAA' WHERE STATUS = 'ACTIVE GULLY';
UPDATE EROSEVID SET STATUS = 'WAA' WHERE STATUS = 'GULLY';
UPDATE EROSEVID SET STATUS = 'WAD' WHERE STATUS = 'DEBRIS DAM';
UPDATE EROSEVID SET STATUS = 'WAD' WHERE STATUS = 'DEBRIS';
UPDATE EROSEVID SET STATUS = 'WAD' WHERE STATUS = 'DEBRIS DAM';
UPDATE EROSEVID SET STATUS = 'WAD' WHERE STATUS = 'DEBRIS DAM';
UPDATE EROSEVID SET STATUS = 'WAD' WHERE STATUS = 'DEBRIS DAMS';
UPDATE EROSEVID SET STATUS = 'WAD' WHERE STATUS = 'DEBRIS DAMS';
UPDATE EROSEVID SET STATUS = 'WAD' WHERE STATUS = 'DEBRIS DAMS';
UPDATE EROSEVID SET STATUS = 'WAN' WHERE STATUS = 'NO WATER EROSION';
UPDATE EROSEVID SET STATUS = 'WAN' WHERE STATUS = 'NO WATER EROSION';
UPDATE EROSEVID SET STATUS = 'WAN' WHERE STATUS = 'NO WATER EROSION';
UPDATE EROSEVID SET STATUS = 'WAN' WHERE STATUS = 'NO WATER EROSION';
UPDATE EROSEVID SET STATUS = 'WAN' WHERE STATUS = 'MISS';
UPDATE EROSEVID SET STATUS = 'WAP' WHERE STATUS = 'WATER PED PLNT';
UPDATE EROSEVID SET STATUS = 'WAP' WHERE STATUS = 'WATER PED PLNT';
UPDATE EROSEVID SET STATUS = 'WAP' WHERE STATUS = 'WATER PED PLNT';
UPDATE EROSEVID SET STATUS = 'WAP' WHERE STATUS = 'WAT PED PLNT';
UPDATE EROSEVID SET STATUS = 'WAP' WHERE STATUS = 'WATER PED PLNT.';
UPDATE EROSEVID SET STATUS = 'WAS' WHERE STATUS = 'SHEET RILL';
UPDATE EROSEVID SET STATUS = 'WAS' WHERE STATUS = 'SHEET/RILL';
UPDATE EROSEVID SET STATUS = 'WAS' WHERE STATUS = 'SHEET/RILL';
UPDATE EROSEVID SET STATUS = 'WAS' WHERE STATUS = 'SHEET/RILL';
UPDATE EROSEVID SET STATUS = 'WID' WHERE STATUS = 'DRIFTING';
UPDATE EROSEVID SET STATUS = 'WIN' WHERE STATUS = 'NO WIND EROSION';
UPDATE EROSEVID SET STATUS = 'WIN' WHERE STATUS = 'NO WIND EROSION';
UPDATE EROSEVID SET STATUS = 'WIN' WHERE STATUS = 'NO WIND EROSION';
UPDATE EROSEVID SET STATUS = 'WIP' WHERE STATUS = 'WIND PED PLNT';
UPDATE EROSEVID SET STATUS = 'WIP' WHERE STATUS = 'WIND PED PLNT';
UPDATE EROSEVID SET STATUS = 'WIS' WHERE STATUS = 'SCOURING';
UPDATE EROSEVID SET STATUS = 'WIS' WHERE STATUS = 'SCOURING';
UPDATE LINEMON SET AERCOV = 'N' WHERE AERCOV = '';
UPDATE LINEMON SET AERCOV = 'A' WHERE AERCOV = 'A';
UPDATE LINEMON SET AERCOV = 'AP' WHERE AERCOV = 'AP';
UPDATE LINEMON SET AERCOV = 'N' WHERE AERCOV = 'B';

UPDATE LINEMON SET AERCOV = 'U' WHERE AERCOV = 'H2';
UPDATE LINEMON SET AERCOV = 'L' WHERE AERCOV = 'L';
UPDATE LINEMON SET AERCOV = 'N' WHERE AERCOV = 'M';
UPDATE LINEMON SET AERCOV = 'N' WHERE AERCOV = 'N';
UPDATE LINEMON SET AERCOV = 'N' WHERE AERCOV = 'NN';
UPDATE LINEMON SET AERCOV = 'N' WHERE AERCOV = 'NP';
UPDATE LINEMON SET AERCOV = 'P' WHERE AERCOV = 'P';
UPDATE LINEMON SET AERCOV = 'P' WHERE AERCOV = 'P';
UPDATE LINEMON SET AERCOV = 'AP' WHERE AERCOV = 'PA';
UPDATE LINEMON SET AERCOV = 'N' WHERE AERCOV = 'PN';
UPDATE LINEMON SET AERCOV = 'N' WHERE AERCOV = 'R';
UPDATE LINEMON SET AERCOV = 'N' WHERE AERCOV = 'T';
UPDATE LINEMON SET AERCOV = 'A' WHERE AERCOV = 'A';
UPDATE LINEMON SET AERCOV = 'AP' WHERE AERCOV = 'AP';
UPDATE LINEMON SET AERCOV = 'N' WHERE AERCOV = 'N';
UPDATE LINEMON SET AERCOV = 'P' WHERE AERCOV = 'P';
UPDATE GNDCOVER SET DISTURB = 'N' WHERE DISTURB = '';
UPDATE GNDCOVER SET DISTURB = 'U' WHERE DISTURB = 'H2';
UPDATE GNDCOVER SET DISTURB = 'N' WHERE DISTURB = 'L';
UPDATE GNDCOVER SET DISTURB = 'N' WHERE DISTURB = 'M';
UPDATE GNDCOVER SET DISTURB = 'N' WHERE DISTURB = 'N';
UPDATE GNDCOVER SET DISTURB = 'O' WHERE DISTURB = 'O';
UPDATE GNDCOVER SET DISTURB = 'P' WHERE DISTURB = 'P';
UPDATE GNDCOVER SET DISTURB = 'PO' WHERE DISTURB = 'PO';
UPDATE GNDCOVER SET DISTURB = 'R' WHERE DISTURB = 'R';
UPDATE GNDCOVER SET DISTURB = 'T' WHERE DISTURB = 'T';
UPDATE GNDCOVER SET DISTURB = 'TO' WHERE DISTURB = 'TO';
UPDATE GNDCOVER SET DISTURB = 'N' WHERE DISTURB = 'W';
UPDATE GNDCOVER SET DISTURB = 'N' WHERE DISTURB = 'X';
UPDATE GNDCOVER SET DISTURB = 'N' WHERE DISTURB = 'LT';
UPDATE GNDCOVER SET DISTURB = 'N' WHERE DISTURB = 'N';
UPDATE GNDCOVER SET DISTURB = 'O' WHERE DISTURB = 'O';
UPDATE GNDCOVER SET DISTURB = 'O' WHERE DISTURB = 'OR';
UPDATE GNDCOVER SET DISTURB = 'N' WHERE DISTURB = 'O';
UPDATE GNDCOVER SET DISTURB = 'P' WHERE DISTURB = 'P';
UPDATE GNDCOVER SET DISTURB = 'R' WHERE DISTURB = 'R';
UPDATE GNDCOVER SET DISTURB = 'T' WHERE DISTURB = 'T';
UPDATE GNDCOVER SET DISTURB = 'T' WHERE DISTURB = 'TR';
UPDATE GNDCOVER SET DISTURB = 'N' WHERE DISTURB = 'X';
UPDATE LINEMON SET GNDCOV = 'B' WHERE GNDCOV = '';
UPDATE LINEMON SET GNDCOV = 'B' WHERE GNDCOV = 'AT';
UPDATE LINEMON SET GNDCOV = 'B' WHERE GNDCOV = 'B';
UPDATE LINEMON SET GNDCOV = 'B' WHERE GNDCOV = 'BB';
UPDATE LINEMON SET GNDCOV = 'L' WHERE GNDCOV = 'FL';
UPDATE LINEMON SET GNDCOV = 'B' WHERE GNDCOV = 'G';

UPDATE LINEMON SET GNDCOV = 'U' WHERE GNDCOV = 'H2';
UPDATE LINEMON SET GNDCOV = 'B' WHERE GNDCOV = 'K';
UPDATE LINEMON SET GNDCOV = 'L' WHERE GNDCOV = 'L';
UPDATE LINEMON SET GNDCOV = 'M' WHERE GNDCOV = 'M';
UPDATE LINEMON SET GNDCOV = 'M' WHERE GNDCOV = 'MO';
UPDATE LINEMON SET GNDCOV = 'B' WHERE GNDCOV = 'N';
UPDATE LINEMON SET GNDCOV = 'P' WHERE GNDCOV = 'P';
UPDATE LINEMON SET GNDCOV = 'R' WHERE GNDCOV = 'R';
UPDATE LINEMON SET GNDCOV = 'P' WHERE GNDCOV = 'T';
UPDATE LINEMON SET GNDCOV = 'L' WHERE GNDCOV = 'TL';
UPDATE LINEMON SET GNDCOV = 'P' WHERE GNDCOV = 'TR';
UPDATE LINEMON SET GNDCOV = 'P' WHERE GNDCOV = 'V';
UPDATE LINEMON SET GNDCOV = 'B' WHERE GNDCOV = 'B';
UPDATE LINEMON SET GNDCOV = 'L' WHERE GNDCOV = 'L';
UPDATE LINEMON SET GNDCOV = 'P' WHERE GNDCOV = 'P';
UPDATE LINEMON SET GNDCOV = 'R' WHERE GNDCOV = 'R';
UPDATE LINEMON SET DISTURB = 'N' WHERE DISTURB = '';
UPDATE LINEMON SET DISTURB = 'U' WHERE DISTURB = 'H2';
UPDATE LINEMON SET DISTURB = 'N' WHERE DISTURB = 'L';
UPDATE LINEMON SET DISTURB = 'N' WHERE DISTURB = 'M';
UPDATE LINEMON SET DISTURB = 'N' WHERE DISTURB = 'N';
UPDATE LINEMON SET DISTURB = 'O' WHERE DISTURB = 'O';
UPDATE LINEMON SET DISTURB = 'P' WHERE DISTURB = 'P';
UPDATE LINEMON SET DISTURB = 'PO' WHERE DISTURB = 'PO';
UPDATE LINEMON SET DISTURB = 'R' WHERE DISTURB = 'R';
UPDATE LINEMON SET DISTURB = 'T' WHERE DISTURB = 'T';
UPDATE LINEMON SET DISTURB = 'TO' WHERE DISTURB = 'TO';
UPDATE LINEMON SET DISTURB = 'N' WHERE DISTURB = 'W';
UPDATE LINEMON SET DISTURB = 'N' WHERE DISTURB = 'X';
UPDATE LINEMON SET DISTURB = 'N' WHERE DISTURB = 'LT';
UPDATE LINEMON SET DISTURB = 'N' WHERE DISTURB = 'N';
UPDATE LINEMON SET DISTURB = 'O' WHERE DISTURB = 'O';
UPDATE LINEMON SET DISTURB = 'O' WHERE DISTURB = 'OR';
UPDATE LINEMON SET DISTURB = 'N' WHERE DISTURB = 'O';
UPDATE LINEMON SET DISTURB = 'P' WHERE DISTURB = 'P';
UPDATE LINEMON SET DISTURB = 'R' WHERE DISTURB = 'R';
UPDATE LINEMON SET DISTURB = 'T' WHERE DISTURB = 'T';
UPDATE LINEMON SET DISTURB = 'T' WHERE DISTURB = 'TR';
UPDATE LINEMON SET DISTURB = 'N' WHERE DISTURB = 'X';

REMARK

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REBUILD INDEXES AND KEYS

/

CREATE UNIQUE INDEX AERCOV_CODE_KEY ON AERCOV_CODE (
AERCOV);

CREATE UNIQUE INDEX BIRDSURV_KEY ON BIRDSURV (
INSTALID,
PLOTID,
RECDATE);

CREATE UNIQUE INDEX CLIMATESTN_KEY ON CLIMATESTATIONS (
INSTALID,
STATION);

CREATE UNIQUE INDEX DISTURB_CODE_KEY ON DISTURB_CODE (
DISTURB);

CREATE UNIQUE INDEX EROS_CODE_KEY ON EROS_CODE (
STATUS);

CREATE UNIQUE INDEX FED_STATUS_KEY ON FED_STATUS (
FEDSTAT);

CREATE UNIQUE INDEX GENDER_CODE_KEY ON GENDER_CODE (
SEX);

CREATE UNIQUE INDEX GNDCOV_CODE_KEY ON GNDCOV_CODE (
GNDCOV);

CREATE UNIQUE INDEX GROUPING_KEY ON GROUPING (
PLOTID,
INSTALID);

CREATE UNIQUE INDEX HERPSURV_KEY ON HERPSURV (
INSTALID,
PLOTID,
RECDATE);

CREATE UNIQUE INDEX INSTMAST_KEY ON INSTMAST (
INSTALID);

CREATE UNIQUE INDEX LANDUSE_CODE_KEY ON LANDUSE_CODE (
LANDUSE);

CREATE UNIQUE INDEX MAINT_CODE_KEY ON MAINT_CODE (
MAINTAIN);

```
CREATE UNIQUE INDEX MAMSURV_KEY ON MAMSURV (  
    INSTALID,  
    PLOTID,  
    RECDATE);
```

```
CREATE UNIQUE INDEX MATED_STATUS_KEY ON MATED_STATUS_CODE (  
    MATED_STATUS);
```

```
CREATE UNIQUE INDEX METHODS_CODE_KEY ON METHODS_CODE (  
    METHOD);
```

```
CREATE UNIQUE INDEX PLNTLIST_KEY ON PLNTLIST (  
    VEGID);
```

```
CREATE UNIQUE INDEX PLOTMAST_KEY ON PLOTMAST (  
    INSTALID,  
    PLOTID);
```

```
CREATE UNIQUE INDEX PLOTSURV_KEY ON PLOTSURV (  
    INSTALID,  
    PLOTID,  
    RECDATE);
```

```
CREATE UNIQUE INDEX POINT_CODE_KEY ON POINT_CODE (  
    MEASURE_PT);
```

```
CREATE UNIQUE INDEX STATE_STATUS_KEY ON STATE_STATUS (  
    STATESTAT);
```

```
CREATE UNIQUE INDEX VERTLIST_KEY ON VERTLIST (  
    VERTID);
```

```
ALTER TABLE INSTMAST  
    PRIMARY KEY (INSTALID);
```

```
ALTER TABLE PLOTMAST  
    PRIMARY KEY (INSTALID, PLOTID);
```

```
ALTER TABLE PLOTSURV  
    PRIMARY KEY (INSTALID, PLOTID, RECDATE);
```

```
ALTER TABLE HERPSURV  
    PRIMARY KEY (INSTALID, PLOTID, RECDATE);
```

ALTER TABLE MAMSURV
PRIMARY KEY (INSTALID, PLOTID, RECDATE);

ALTER TABLE BIRDSURV
PRIMARY KEY (INSTALID, PLOTID, RECDATE);

ALTER TABLE METHODS_CODE
PRIMARY KEY (METHOD);

ALTER TABLE GENDER_CODE
PRIMARY KEY (SEX);

ALTER TABLE POINT_CODE
PRIMARY KEY (MEASURE_PT);

ALTER TABLE MATED_STATUS_CODE
PRIMARY KEY (MATED_STATUS);

ALTER TABLE DISTURB_CODE
PRIMARY KEY (DISTURB);

ALTER TABLE AERCOV_CODE
PRIMARY KEY (AERCOV);

ALTER TABLE GNDCOV_CODE
PRIMARY KEY (GNDCOV);

ALTER TABLE LANDUSE_CODE
PRIMARY KEY (LANDUSE);

ALTER TABLE EROS_CODE
PRIMARY KEY (STATUS);

ALTER TABLE MAINT_CODE
PRIMARY KEY (MAINTAIN);

ALTER TABLE GROUPING
PRIMARY KEY (PLOTID, INSTALID);

ALTER TABLE CLIMATESTATIONS
PRIMARY KEY (INSTALID, STATION);

ALTER TABLE FED_STATUS
PRIMARY KEY (FEDSTAT);

ALTER TABLE STATE_STATUS
PRIMARY KEY (STATESTAT);

ALTER TABLE PLOTMAST
FOREIGN KEY FK_PMAST (INSTALID)
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE PLOTSURV
FOREIGN KEY FK_PSRV (INSTALID, PLOTID)
REFERENCES PLOTMAST ON DELETE RESTRICT;

ALTER TABLE ENVCONST
FOREIGN KEY FK_EC (INSTALID)
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE GROUPING
FOREIGN KEY FK_GRP (INSTALID, PLOTID)
REFERENCES PLOTMAST ON DELETE RESTRICT;

ALTER TABLE HERPSURV
FOREIGN KEY FK_HSRV (INSTALID)
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE MAMSURV
FOREIGN KEY FK_MSRV (INSTALID)
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE BIRDSURV
FOREIGN KEY FK_BSRV (INSTALID)
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE HERPS
FOREIGN KEY FK_HRPS1 (METHOD)
REFERENCES METHODS_CODE ON DELETE RESTRICT;

ALTER TABLE HERPS
FOREIGN KEY FK_HRPS2 (INSTALID, PLOTID, RECDATE)
REFERENCES HERPSURV ON DELETE RESTRICT;

ALTER TABLE HERPS
FOREIGN KEY FK_HRPS3 (SEX)
REFERENCES GENDER_CODE ON DELETE RESTRICT;

ALTER TABLE MAMMALS
FOREIGN KEY FK_MAM1 (METHOD)
REFERENCES METHODS_CODE ON DELETE RESTRICT;

ALTER TABLE MAMMALS

FOREIGN KEY FK_MAM2 (INSTALID, PLOTID, RECDATE)

REFERENCES MAMSURV ON DELETE RESTRICT;

ALTER TABLE MAMMALS

FOREIGN KEY FK_MAM3 (SEX)

REFERENCES GENDER_CODE ON DELETE RESTRICT;

ALTER TABLE BIRDS

FOREIGN KEY FK_BIRD1 (MEASURE_PT)

REFERENCES POINT_CODE ON DELETE RESTRICT;

ALTER TABLE BIRDS

FOREIGN KEY FK_BIRD2 (MATED_STATUS)

REFERENCES MATED_STATUS_CODE ON DELETE RESTRICT;

ALTER TABLE BIRDS

FOREIGN KEY FK_BIRD3 (INSTALID, PLOTID, RECDATE)

REFERENCES BIRDSURV ON DELETE RESTRICT;

ALTER TABLE MAINTACT

FOREIGN KEY FK_MNT1 (INSTALID, PLOTID, RECDATE)

REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE MAINTACT

FOREIGN KEY FK_MNT2 (MAINTAIN)

REFERENCES MAINT_CODE ON DELETE RESTRICT;

ALTER TABLE LINEMON

FOREIGN KEY FK_LM1 (DISTURB)

REFERENCES DISTURB_CODE ON DELETE RESTRICT;

ALTER TABLE LINEMON

FOREIGN KEY FK_LM2 (AERCOV)

REFERENCES AERCOV_CODE ON DELETE RESTRICT;

ALTER TABLE LINEMON

FOREIGN KEY FK_LM3 (GNDCOV)

REFERENCES GNDCOV_CODE ON DELETE RESTRICT;

ALTER TABLE LINEMON

FOREIGN KEY FK_LM4 (INSTALID, PLOTID, RECDATE)

REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE LANDUSE

FOREIGN KEY FK_LU1 (INSTALID, PLOTID, RECDATE)

REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE LANDUSE

FOREIGN KEY FK_LU2 (LANDUSE)

REFERENCES LANDUSE_CODE ON DELETE RESTRICT;

ALTER TABLE GNDCOVER
FOREIGN KEY FK_GND1 (INSTALID, PLOTID, RECDATE)
REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE GNDCOVER
FOREIGN KEY FK_GND2 (DISTURB)
REFERENCES DISTURB_CODE ON DELETE RESTRICT;

ALTER TABLE F_COUNT
FOREIGN KEY FK_FCNT (INSTALID, PLOTID, RECDATE)
REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE EROSEVID
FOREIGN KEY FK_EROS1 (INSTALID, PLOTID, RECDATE)
REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE EROSEVID
FOREIGN KEY FK_EROS2 (STATUS)
REFERENCES EROS_CODE ON DELETE RESTRICT;

ALTER TABLE BELTTRAN
FOREIGN KEY FK_BELT (INSTALID, PLOTID, RECDATE)
REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE BELTSURV
FOREIGN KEY FK_BTsrv (INSTALID, PLOTID, RECDATE)
REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE AERCOVER
FOREIGN KEY FK_AER (INSTALID, PLOTID, RECDATE)
REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE PLOTMAPS
FOREIGN KEY FK_PMAP (INSTALID, PLOTID)
REFERENCES PLOTMAST ON DELETE RESTRICT;

ALTER TABLE HISTORY
FOREIGN KEY FK_HIST (INSTALID)
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE BELTMON
FOREIGN KEY FK_BM (INSTALID, PLOTID, RECDATE)
REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE BASALA
FOREIGN KEY FK_BA (INSTALID, PLOTID, RECDATE)
REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE SOILSMPL

FOREIGN KEY FK_SSMPL (INSTALID, PLOTID)
REFERENCES PLOTMAST ON DELETE RESTRICT;

ALTER TABLE CLIMATESTATIONS

FOREIGN KEY FK_CSTNT (INSTALID)
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE CLIMATEDATA

FOREIGN KEY FK_CDATA (INSTALID, STATION)
REFERENCES CLIMATESTATIONS ON DELETE RESTRICT;

ALTER TABLE MAPS

FOREIGN KEY FK_MAPS (INSTALID)
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE PCSDYEARSUM

FOREIGN KEY FK_PCSY (INSTALID)
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE EROSION

FOREIGN KEY FK_ERSN (INSTALID, PLOTID)
REFERENCES PLOTMAST ON DELETE RESTRICT;

ALTER TABLE COMMCLASSPLOTSUM

FOREIGN KEY FK_COMM (INSTALID, PLOTID)
REFERENCES PLOTMAST ON DELETE RESTRICT;

ALTER TABLE LANDUSEYEARSUM

FOREIGN KEY FK_LUYRS (INSTALID)
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE PCSDPLOTSUM

FOREIGN KEY FK_PDPS (INSTALID, PLOTID)
REFERENCES PLOTMAST ON DELETE RESTRICT;

ALTER TABLE TACTCONA

FOREIGN KEY FK_CONA (INSTALID, PLOTID)
REFERENCES PLOTMAST ON DELETE RESTRICT;

ALTER TABLE PCTTYEARSUM

FOREIGN KEY FK_PCTT (INSTALID)
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE HERBRIUM

FOREIGN KEY FK_HERB1 (FEDSTAT)

REFERENCES FED_STATUS ON DELETE RESTRICT;

ALTER TABLE HERBRIUM

FOREIGN KEY FK_HERB2 (STATESTAT)

REFERENCES STATE_STATUS ON DELETE RESTRICT;

ALTER TABLE HERBRIUM

FOREIGN KEY FK_HERB3 (INSTALID)

REFERENCES INSTMAST ON DELETE RESTRICT;

REMARK

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UPDATE COMMENTS ON COLUMNS AND TABLES

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COMMENT ON TABLE AERCOVER IS 'AERIAL DATA FROM LINE TRANSECT INVENTORY';

COMMENT ON TABLE AERCOV_CODE IS 'MONITORING AERIAL COVER CODE VALIDATION TABLE';

COMMENT ON TABLE BASALA IS 'BASAL AREA DATA';

COMMENT ON TABLE BELTMON IS 'BELT TRANSECT MONITORING DATA';

COMMENT ON TABLE BELTSURV IS 'PARAMETERS FOR INVENTORY AND MONITORING BELT TRANSECTS';

COMMENT ON TABLE BELTRAN IS 'BELT TRANSECT INVENTORY DATA';

COMMENT ON TABLE BIRDS IS 'BIRD DATA FROM WILDLIFE INVENTORY';

COMMENT ON TABLE BIRDSURV IS 'TABLE IDENTIFYING ALL INVENTORIES FOR BIRDS ON EACH PLOT';

COMMENT ON TABLE CLIMATEDATA IS 'CLIMATE DATA';

COMMENT ON TABLE CLIMATESTATIONS IS 'CLIMATE STATION INFORMATION';

COMMENT ON TABLE COMMCLASSPLOTSUM IS 'PLANT COMMUNITY CLASSIFICATIONS FOR EACH PLOT';

COMMENT ON TABLE DISTURB_CODE IS 'DISTURBANCE CODE VALIDATION TABLE';

COMMENT ON TABLE ENVCONST IS 'ENVIRONMENTAL CONSTRAINTS';

COMMENT ON TABLE EROSEVID IS 'EROSION EVIDENCE DATA FROM LAND USE DATA';

COMMENT ON TABLE EROSION IS 'TABLE FOR USLE ESTIMATIONS';

COMMENT ON TABLE EROS_CODE IS 'OBSERVED EROSION CODE VALIDATION TABLE';

COMMENT ON TABLE FED_STATUS IS 'FEDERAL STATUS VALIDATION TABLE';

COMMENT ON TABLE F_COUNT IS 'OPTIONAL DATA FROM INVENTORY OR MONITORING';

COMMENT ON TABLE GENDER_CODE IS 'GENDER CODE VALIDATION TABLE';

COMMENT ON TABLE GNDCOVER IS 'GROUND DATA FROM LINE TRANSECT INVENTORY';

COMMENT ON TABLE GNDCOV_CODE IS 'MONITORING GROUND COVER CODE VALIDATION TABLE';

COMMENT ON TABLE GROUPING IS 'DYNAMIC TABLE FOR LCTA FRONT END ROUTINES';

COMMENT ON TABLE HERBRIUM IS 'FLORISTIC INVENTORY DATA';

COMMENT ON TABLE HERPS IS 'HERP DATA FROM WILDLIFE INVENTORY';

COMMENT ON TABLE HERPSURV IS 'TABLE IDENTIFYING ALL INVENTORIES FOR HERPS ON EACH PLOT';

COMMENT ON TABLE HISTORY IS 'GENERAL INFORMATIONAL DATA';

COMMENT ON TABLE INSTMAST IS 'MASTER TABLE LISTING LCTA INSTALLATIONS';

COMMENT ON TABLE LANDUSE IS 'MILITARY AND NON-MILITARY LAND USE DATA';

COMMENT ON TABLE LANDUSEYEARSUM IS 'LAND USE SUMMARY DATA BY YEAR';

COMMENT ON TABLE LANDUSE_CODE IS 'LANDUSE CODE VALIDATION TABLE';

COMMENT ON TABLE LINEMON IS 'LINE TRANSECT MONITORING DATA';

COMMENT ON TABLE MAINTACT IS 'MAINTENANCE ACTIVITY DATA';

COMMENT ON TABLE MAINT_CODE IS 'MAINTENANCE ACTIVITY CODE VALIDATION TABLE';

COMMENT ON TABLE MAMMALS IS 'MAMMAL DATA FROM WILDLIFE INVENTORY';

COMMENT ON TABLE MAMSURV IS 'TABLE IDENTIFYING ALL INVENTORIES FOR MAMMALS ON EACH PLOT';

COMMENT ON TABLE MATED_STATUS_CODE IS 'BIRD MATED STATUS VALIDATION TABLE';

COMMENT ON TABLE METHODS_CODE IS 'MAMMAL AND HERP METHODS VALIDATION TABLE';

COMMENT ON TABLE PCSDPLOTSUM IS 'PLANT COVER, SURFACE DISTURBANCE SUMMARY DATA BY PLOT';

COMMENT ON TABLE PCSDYEARSUM IS 'PLANT COVER, SURFACE DISTURBANCE SUMMARY DATA BY YEAR';

COMMENT ON TABLE PCTTYEARSUM IS 'PERCENT OF TOLERANCE (USLE) SUMMARY DATA BY YEAR';

COMMENT ON TABLE PLNTLIST IS 'MASTER LIST CATALOGING EACH PLANT CODE';

COMMENT ON TABLE PLOTMAPS IS 'MAP IMAGES FOR EACH PLOT';

COMMENT ON TABLE PLOTMAST IS 'MASTER PLOT TABLE [ONE PER LCTA PLOT]';

COMMENT ON TABLE PLOTSURV IS 'TABLE IDENTIFYING ALL INVENTORIES ON EACH PLOT';

COMMENT ON TABLE POINT_CODE IS 'BIRD DATA COLLECTION LINE LOCATION VALIDATION TABLE';

COMMENT ON TABLE SOILS IS 'PLOT SLOPE DATA [USED TO CALCULATE LS IN USLE]';

COMMENT ON TABLE SOILMAST IS 'MASTER SOIL SERIES TABLE';

COMMENT ON TABLE SOILSMPL IS 'SOIL SAMPLE DATA FROM USDA NATIONAL SOILS LAB';

COMMENT ON TABLE STATE_STATUS IS 'STATE T&E STATUS VALIDATION TABLE';

COMMENT ON TABLE TACTCONA IS 'TACTICAL CONCEALMENT SUMMARY A';

COMMENT ON TABLE TACTCONB IS 'TACTICAL CONCEALMENT SUMMARY B';

COMMENT ON TABLE TACTCONC IS 'TACTICAL CONCEALMENT SUMMARY C';

COMMENT ON TABLE VERTLIST IS 'MASTER LIST CATALOGING EACH VERTEBRATE CODE';

COMMENT ON COLUMN HERBRIUM.ABUNDANCE IS 'RELATIVE ABUNDANCE, 1-5';
COMMENT ON COLUMN PCSDYEARSUM.AC00 IS 'PERCENT OF PLOTS WITH NO AERIAL CONCEALMENT';

COMMENT ON COLUMN PCSDYEARSUM.AC100 IS 'PERCENT OF PLOTS WITH 100% AERIAL CONCEALMENT';

COMMENT ON COLUMN PCSDYEARSUM.AC20 IS 'PERCENT OF PLOTS WITH 20% AERIAL CONCEALMENT';

COMMENT ON COLUMN PCSDYEARSUM.AC40 IS 'PERCENT OF PLOTS WITH 40% AERIAL CONCEALMENT';

COMMENT ON COLUMN PCSDPLOTSUM.AC4M IS 'NUMBER OF POINTS WITH COVER ABOVE 4 M';

COMMENT ON COLUMN PCSDYEARSUM.AC60 IS 'PERCENT OF PLOTS WITH 60% AERIAL CONCEALMENT';

COMMENT ON COLUMN PCSDYEARSUM.AC80 IS 'PERCENT OF PLOTS WITH 80% AERIAL CONCEALMENT';

COMMENT ON COLUMN LANDUSEYEARSUM.ACCBURN IS 'NUMBER OF PLOTS WITH ACCIDENTAL BURN';

COMMENT ON COLUMN PCSDYEARSUM.ACMEAN IS 'MEAN AERIAL CONCEALMENT PERCENT';

COMMENT ON COLUMN PCSDPLOTSUM.ACOBS IS 'NUMBER OF AERIAL CONCEALMENT PLOTS';

COMMENT ON COLUMN PCSDYEARSUM.ACSTDEV IS 'STANDARD DEVIATION OF MEAN AERIAL CONCEALMENT PERCENT';

COMMENT ON COLUMN AERCOV_CODE.AERCOV IS 'MONITORING AERIAL COVER CODE';

COMMENT ON COLUMN LINEMON.AERCOV IS 'MONITORING AERIAL COVER CODE';

COMMENT ON COLUMN AERCOV_CODE.AERCOV_DEF IS 'MONITORING AERIAL COVER CODE DEFINITION';

COMMENT ON COLUMN AERCOV_CODE.AERCOV_NOTE IS 'AERIAL COVER CATEGORY NOTE';

COMMENT ON COLUMN COMMCLASSPLOTSUM.ANALYEAR IS 'YEAR FOR RECORDING:ANALYSIS';

COMMENT ON COLUMN EROSION.ANALYEAR IS 'YEAR FOR RECORDING:ANALYSIS';

COMMENT ON COLUMN LANDUSEYEARSUM.ANALYEAR IS 'YEAR FOR RECORDING:ANALYSIS';

COMMENT ON COLUMN PCSDPLOTSUM.ANALYEAR IS 'YEAR FOR RECORDING:ANALYSIS';

COMMENT ON COLUMN PCSDYEARSUM.ANALYEAR IS 'YEAR FOR RECORDING:ANALYSIS';

COMMENT ON COLUMN PCTTYEARSUM.ANALYEAR IS 'YEAR FOR RECORDING:ANALYSIS';

COMMENT ON COLUMN TACTCONA.ANALYEAR IS 'YEAR FOR RECORDING:ANALYSIS';
COMMENT ON COLUMN TACTCONB.ANALYEAR IS 'YEAR FOR RECORDING:ANALYSIS';
COMMENT ON COLUMN TACTCONC.ANALYEAR IS 'YEAR FOR RECORDING:ANALYSIS';
COMMENT ON COLUMN BELTTRAN.AREA IS 'SURFACE AREA OF A VEGETATION CLUMP';
COMMENT ON COLUMN PLOTSURV.ASPECT IS 'PLOT ASPECT';
COMMENT ON COLUMN HERBRIUM.ASSOSP IS 'ASSOCIATED SPECIES';
COMMENT ON COLUMN COMMCLASSPLOTSUM.ATDB IS 'AERIAL TOP HITS DWARFSHRUB BROADLEAF';
COMMENT ON COLUMN COMMCLASSPLOTSUM.ATDC IS 'AERIAL TOP HITS DWARFSHRUB CONIFER';
COMMENT ON COLUMN COMMCLASSPLOTSUM.ATFA IS 'AERIAL TOP HITS FORB ANNUAL';
COMMENT ON COLUMN COMMCLASSPLOTSUM.ATFP IS 'AERIAL TOP HITS FORB PERENNIAL';
COMMENT ON COLUMN COMMCLASSPLOTSUM.ATGA IS 'AERIAL TOP HITS GRASS ANNUAL';
COMMENT ON COLUMN COMMCLASSPLOTSUM.ATGP IS 'AERIAL TOP HITS GRASS PERENNIAL';
COMMENT ON COLUMN COMMCLASSPLOTSUM.ATH IS 'AERIAL TOP HITS HALFSHRUB';
COMMENT ON COLUMN COMMCLASSPLOTSUM.ATSB IS 'AERIAL TOP HITS SHRUB CONIFER';
COMMENT ON COLUMN COMMCLASSPLOTSUM.ATSC IS 'AERIAL TOP HITS SHRUB CONIFER';
COMMENT ON COLUMN COMMCLASSPLOTSUM.ATTB IS 'AERIAL TOP HITS TREE BROADLEAF';
COMMENT ON COLUMN COMMCLASSPLOTSUM.ATTC IS 'AERIAL TOP HITS TREE CONIFER';
COMMENT ON COLUMN VERTLIST.AUTHORS IS 'AUTHOR OF THE SPECIES';
COMMENT ON COLUMN EROSION.AVEMINHT IS 'AVERAGE MINIMUM DRIP HEIGHT';
COMMENT ON COLUMN PLOTMAST.AZIMUTH IS 'PLOT AZIMUTH';
COMMENT ON COLUMN HERPSURV.AZIMUTH IS 'PLOT AZIMUTH';
COMMENT ON COLUMN TACTCONC.B00TO05 IS 'NUMBER OF BROADLEAF TREES IN 0 TO 5 HEIGHT CATEGORY';
COMMENT ON COLUMN TACTCONC.B06TO10 IS 'NUMBER OF BROADLEAF TREES IN 6 TO 10 HEIGHT CATEGORY';
COMMENT ON COLUMN TACTCONC.B11TO15 IS 'NUMBER OF BROADLEAF TREES IN 11 TO 15 HEIGHT CATEGORY';
COMMENT ON COLUMN TACTCONC.B16TO20 IS 'NUMBER OF BROADLEAF TREES IN 16 TO 20 HEIGHT CATEGORY';

COMMENT ON COLUMN TACTCONC.B21TO40 IS 'NUMBER OF BROADLEAF TREES IN 21 TO 40 HEIGHT CATEGORY';

COMMENT ON COLUMN TACTCONC.B41TO60 IS 'NUMBER OF BROADLEAF TREES IN 41 TO 60 HEIGHT CATEGORY';

COMMENT ON COLUMN TACTCONC.B61TO85 IS 'NUMBER OF BROADLEAF TREES IN 61 TO 85 HEIGHT CATEGORY';

COMMENT ON COLUMN BASALA.BA IS 'BASAL AREA';

COMMENT ON COLUMN MAMSURV.BAITS IS 'BAITS USED FOR SMALL MAMMAL TRAPPING';

COMMENT ON COLUMN SOILSMPL.BARCLAY IS 'RATION 15 BAR-CLAY';

COMMENT ON COLUMN SOILSMPL.BARWATER IS '15 BAR WATER ON AIR DRY SOIL, WEIGHT PERCENT';

COMMENT ON COLUMN HERBRIUM.BAUTHOR IS 'AUTHOR OF THE SPECIES';

COMMENT ON COLUMN BELTSURV.BELTHT IS 'BELT TRANSECT BELT HEIGHT';

COMMENT ON COLUMN BELTSURV.BELTWIDE IS 'BELT TRANSECT BELT WIDTH';

COMMENT ON COLUMN TACTCONC.BGT85 IS 'NUMBER OF BROADLEAF TREES IN GREATER THAN 85 HEIGHT';

COMMENT ON COLUMN BIRDSURV.BIRDNOTE IS 'PLOT NOTE FOR BIRD SURVEY';

COMMENT ON COLUMN LANDUSEYEARSUM.BIV IS 'NUMBER OF BIVOUAC DISTURBED SITES';

COMMENT ON COLUMN EROSION.C IS 'C VALUE USED IN USLE';

COMMENT ON COLUMN TACTCONC.C00TO05 IS 'NUMBER OF CONIFERS IN 0 TO 5 HEIGHT CATEGORY';

COMMENT ON COLUMN TACTCONC.C06TO10 IS 'NUMBER OF CONIFERS IN 6 TO 10 HEIGHT CATEGORY';

COMMENT ON COLUMN EROSION.C1 IS 'C1 SUBFACTOR OF C (USLE FACTOR)';

COMMENT ON COLUMN TACTCONC.C11TO15 IS 'NUMBER OF CONIFERS IN 11 TO 15 HEIGHT CATEGORY';

COMMENT ON COLUMN TACTCONC.C16TO20 IS 'NUMBER OF CONIFERS IN 16 TO 20 HEIGHT CATEGORY';

COMMENT ON COLUMN EROSION.C2 IS 'C2 SUBFACTOR OF C (USLE FACTOR)';

COMMENT ON COLUMN TACTCONC.C21TO40 IS 'NUMBER OF CONIFERS IN 21 TO 40 HEIGHT CATEGORY';

COMMENT ON COLUMN TACTCONC.C41TO60 IS 'NUMBER OF CONIFERS IN 41 TO 60 HEIGHT CATEGORY';

COMMENT ON COLUMN TACTCONC.C61TO85 IS 'NUMBER OF CONIFERS IN 61 TO 85 HEIGHT CATEGORY';

COMMENT ON COLUMN SOILMAST.CALCKMEAN IS 'MEAN CALCULATED K VALUE (USLE FACTOR)';

COMMENT ON COLUMN SOILMAST.CALCKSTDEV IS 'STANDARD DEVIATION OF CALCULATED K VALUE (USLE FACTOR)';

COMMENT ON COLUMN SOILSMPL.CARBLT2MM IS 'CARBONATE, < 2MM FRACTION';

COMMENT ON COLUMN ENVCONST.CASENO IS 'CASE NUMBER';

COMMENT ON COLUMN BELTMON.CAT1TO2 IS 'SHORT-TERM BELT HEIGHT CATEGORY';

COMMENT ON COLUMN BELTMON.CAT2TO3 IS 'SHORT-TERM BELT HEIGHT CATEGORY';
COMMENT ON COLUMN BELTMON.CAT3TO4 IS 'SHORT-TERM BELT HEIGHT CATEGORY';
COMMENT ON COLUMN BELTMON.CATGT4 IS 'SHORT-TERM BELT HEIGHT CATEGORY';
COMMENT ON COLUMN BELTMON.CATMINTO1 IS 'SHORT-TERM BELT HEIGHT CATEGORY';
COMMENT ON COLUMN PCSDPLOTSUM.CCANN IS 'NUMBER OF LOCATION WITH ONLY ANNUAL COVER';
COMMENT ON COLUMN PCSDYEARSUM.CCANNMEAN IS 'MEAN NUMBER OF LOCATION WITH ONLY ANNUAL COVER';
COMMENT ON COLUMN PCSDPLOTSUM.CCANNPER IS 'NUMBER OF LOCATION WITH ANNUAL AND PERENNIAL COVER';
COMMENT ON COLUMN PCSDYEARSUM.CCANNSTDEV IS 'STANDARD DEVIATION OF NUMBER OF LOCATION WITH ONLY';
COMMENT ON COLUMN PCSDYEARSUM.CCAPMEAN IS 'MEAN NUMBER OF LOCATION WITH ANNUAL AND PERENNIAL';
COMMENT ON COLUMN PCSDYEARSUM.CCAPSTDEV IS 'STANDARD DEVIATION OF NUMBER OF LOCATION WITH ANNUAL';
COMMENT ON COLUMN PCSDPLOTSUM.CCNONE IS 'NUMBER OF LOCATION WITH NO COVER';
COMMENT ON COLUMN PCSDYEARSUM.CCNONEMEAN IS 'MEAN NUMBER OF LOCATION WITH NO COVER';
COMMENT ON COLUMN PCSDYEARSUM.CCNONESTDEV IS 'STANDARD DEVIATION OF NUMBER OF LOCATION WITH NO';
COMMENT ON COLUMN PCSDPLOTSUM.CCOBS IS 'NUMBER OF TOTAL LOCATION MEASURED';
COMMENT ON COLUMN PCSDPLOTSUM.CCPER IS 'NUMBER OF LOCATION WITH ONLY PERENNIAL COVER';
COMMENT ON COLUMN PCSDYEARSUM.CCPERMEAN IS 'MEAN NUMBER OF LOCATION WITH ONLY PERENNIAL COVER';
COMMENT ON COLUMN PCSDYEARSUM.CCPERSTDEV IS 'STANDARD DEVIATION OF NUMBER OF LOCATION WITH ONLY';
COMMENT ON COLUMN TACTCONC.CGT85 IS 'NUMBER OF CONIFERS GREATER THAN 85 DM';
COMMENT ON COLUMN LANDUSEYEARSUM.CHEMICAL IS 'NUMBER OF PLOTS WITH EVIDENCE OF CHEMICAL USE';
COMMENT ON COLUMN VERTLIST.CLASS IS 'VERTEBRATE SPECIES CLASS';
COMMENT ON COLUMN BELTTRAN.CLMPBEGIN IS 'BEGINNING LOCATION OF VEGETATION CLUMP';
COMMENT ON COLUMN BELTTRAN.CLMPEND IS 'END LOCATION OF VEGETATION CLUMP';
COMMENT ON COLUMN BIRDSURV.CLOUD_COVER IS 'PERCENT OF CLOUD COVER';
COMMENT ON COLUMN HERPSURV.CLOUD_COVER IS 'PERCENT OF CLOUD COVER';

COMMENT ON COLUMN MAMSURV.CLOUD_COVER IS 'PERCENT OF CLOUD COVER';
COMMENT ON COLUMN SOILSMPL.CO3CLAY IS 'CO3 CLAY';
COMMENT ON COLUMN HERBRIUM.COLLDATE IS 'HERBARIUM COLLECTION DATE';
COMMENT ON COLUMN BIRDSURV.COLLECTOR IS 'COLLECTOR(S)';
COMMENT ON COLUMN HERPSURV.COLLECTOR IS 'COLLECTOR(S)';
COMMENT ON COLUMN MAMSURV.COLLECTOR IS 'COLLECTOR(S)';
COMMENT ON COLUMN HERBRIUM.COLLECTOR IS 'COLLECTOR(S)';
COMMENT ON COLUMN HERBRIUM.COLLNO IS 'COLLECTION NUMBER';
COMMENT ON COLUMN HERBRIUM.COMMENTS IS 'COMMENTS ON PLANT CHARACTERISTICS, SITE, HABITAT, ETC.';
COMMENT ON COLUMN VERTLIST.COMMON IS 'VERTEBRATE COMMON NAME';
COMMENT ON COLUMN HERBRIUM.COMMON IS 'VERTEBRATE COMMON NAME';
COMMENT ON COLUMN HERBRIUM.COUNTY IS 'COUNTY WHERE COLLECTED';
COMMENT ON COLUMN SOILSMPL.COURFRAG IS 'COURSE FRAGMENTS (> 2MM), WEIGHT % OF WHOLE SOIL';
COMMENT ON COLUMN LANDUSEYEARSUM.CROP IS 'NUMBER OF PLOTS WITH CROP USE';
COMMENT ON COLUMN SOILSMPL.CSAND IS 'SOIL ANALYSIS OF COURSE SAND';
COMMENT ON COLUMN SOILSMPL.CSILT IS 'SOIL ANALYSIS OF COURSE SILT';
COMMENT ON COLUMN LANDUSEYEARSUM.DEBDAM IS 'NUMBER OF PLOTS WITH DEBRIS DAMS';
COMMENT ON COLUMN PLOTMAST.DECLIN IS 'PLOT DECLINATION';
COMMENT ON COLUMN LANDUSEYEARSUM.DEMO IS 'NUMBER OF PLOTS WITH DEMOLITION';
COMMENT ON COLUMN HERBRIUM.DETERMIN IS 'DETERMINER OF FINAL IDENTIFICATION';
COMMENT ON COLUMN DISTURB_CODE.DISTURB IS 'GROUND DISTURBANCE TYPE';
COMMENT ON COLUMN GNDCOVER.DISTURB IS 'GROUND DISTURBANCE TYPE';
COMMENT ON COLUMN LINEMON.DISTURB IS 'GROUND DISTURBANCE TYPE';
COMMENT ON COLUMN DISTURB_CODE.DISTURB_DEF IS 'GROUND DISTURBANCE CODE DEFINITION';
COMMENT ON COLUMN DISTURB_CODE.DISTURB_NOTE IS 'DISTURBANCE CATEGORY NOTE';
COMMENT ON COLUMN CLIMATESTATIONS.DMCE IS 'UNIVERSAL TRASVERSE MERCATOR COORDINATE, EASTING';
COMMENT ON COLUMN PLOTMAST.DMCE IS 'UNIVERSAL TRASVERSE MERCATOR COORDINATE, EASTING';
COMMENT ON COLUMN HERBRIUM.DMCE IS 'UNIVERSAL TRASVERSE MERCATOR COORDINATE, EASTING';
COMMENT ON COLUMN CLIMATESTATIONS.DMCN IS 'UNIVERSAL TRASVERSE MERCATOR COORDINATE, NORTHING';
COMMENT ON COLUMN PLOTMAST.DMCN IS 'UNIVERSAL TRASVERSE MERCATOR COORDINATE, NORTHING';
COMMENT ON COLUMN HERBRIUM.DMCN IS 'UNIVERSAL TRASVERSE MERCATOR COORDINATE, NORTHING';

COMMENT ON COLUMN LANDUSEYEARSUM.DRIFTING IS 'NUMBER OF PLOTS WITH DRIFTING WIND EROSION';
COMMENT ON COLUMN EROSION.EFFCOVER IS 'EFFECTIVE COVER IN USLE';
COMMENT ON COLUMN HERBRIUM.ELEV IS 'ELEVATION';
COMMENT ON COLUMN LANDUSEYEARSUM.EXCA IS 'NUMBER OF PLOTS WITH EXCAVATION';
COMMENT ON COLUMN BELTSURV.EXCPTNSP IS 'EXCEPTION SPECIES TO BELT WIDTH';
COMMENT ON COLUMN PLNTLIST.FAMILY IS 'SPECIES FAMILY';
COMMENT ON COLUMN VERTLIST.FAMILY IS 'SPECIES FAMILY';
COMMENT ON COLUMN HERBRIUM.FAMILY IS 'SPECIES FAMILY';
COMMENT ON COLUMN HERBRIUM.FEDSTAT IS 'FEDERAL STATUS';
COMMENT ON COLUMN FED_STATUS.FEDSTAT IS 'FEDERAL STATUS';
COMMENT ON COLUMN FED_STATUS.FEDSTAT_DEF IS 'FEDERAL STATUS CODE DEFINITION';
COMMENT ON COLUMN FED_STATUS.FEDSTAT_NOTE IS 'FEDERAL STATUS CODE NOTES';
COMMENT ON COLUMN TACTCONC.FHDIV IS 'FOLIAR HEIGHT DIVERSITY';
COMMENT ON COLUMN TACTCONC.FHEVEN IS 'FOLIAR HEIGHT EVENNESS';
COMMENT ON COLUMN BIRDS.FLYOVER IS 'BIRD SPECIES FLYOVER (YES OR NO)';
COMMENT ON COLUMN LANDUSEYEARSUM.FOOT IS 'NUMBER OF PLOTS WITH FOOT TRAFFIC';
COMMENT ON COLUMN LANDUSEYEARSUM.FOREST IS 'NUMBER OF PLOTS WITH FORESTRY ACTIVITY';
COMMENT ON COLUMN PLNTLIST.FORM1 IS 'PLANT LIFE FORM 1';
COMMENT ON COLUMN PLNTLIST.FORM2 IS 'PLANT LIFE FORM 2';
COMMENT ON COLUMN SOILSMPL.FSAND IS 'SOIL ANALYSIS OF FIND SAND';
COMMENT ON COLUMN SOILSMPL.FSILT IS 'SOIL ANALYSIS OF FIND SILT';
COMMENT ON COLUMN PCSDPLOTSUM.GCBARE IS 'NUMBER OF BARE GROUND POINTS';
COMMENT ON COLUMN PCSDYEARSUM.GCBAREMEAN IS 'MEAN NUMBER OF BARE GROUND POINTS';
COMMENT ON COLUMN PCSDYEARSUM.GCBARESTDEV IS 'STANDARD DEVIATION OF NUMBER OF BARE GROUND';
COMMENT ON COLUMN PCSDYEARSUM.GCLITMEAN IS 'MEAN NUMBER OF POINTS WITH LITTER';
COMMENT ON COLUMN PCSDYEARSUM.GCLITSTDEV IS 'STANDARD DEVIATION OF POINTS WITH LITTER';
COMMENT ON COLUMN PCSDPLOTSUM.GCLITTER IS 'STANDARD DEVIATION OF NUMBER OF POINTS WITH LITTER';
COMMENT ON COLUMN PCSDPLOTSUM.GCMICRO IS 'NUMBER OF POINTS WITH MICROPHYTES';
COMMENT ON COLUMN PCSDYEARSUM.GCMICROMEAN IS 'MEAN NUMBER OF POINTS WITH MICROPHYTES';

COMMENT ON COLUMN PCSDYEARSUM.GCMICROSTDEV IS 'STANDARD DEVIATION OF NUMBER OF POINTS WITH MICROPHYTES';

COMMENT ON COLUMN PCSDPLOTSUM.GCOBS IS 'TOTAL NUMBER OF GROUND COVER POINTS';

COMMENT ON COLUMN PCSDPLOTSUM.GCPLANT IS 'NUMBER OF POINTS WITH PLANTS';

COMMENT ON COLUMN PCSDYEARSUM.GCPLANTMEAN IS 'MEAN NUMBER OF POINTS WITH PLANTS';

COMMENT ON COLUMN PCSDYEARSUM.GCPLANTSTDEV IS 'STANDARD DEVIATION OF NUMBER OF POINTS WITH PLANTS';

COMMENT ON COLUMN PCSDPLOTSUM.GCROCK IS 'NUMBER OF POINTS WITH ROCKS';

COMMENT ON COLUMN PCSDYEARSUM.GCROCKMEAN IS 'MEAN NUMBER OF POINTS WITH ROCKS';

COMMENT ON COLUMN PCSDYEARSUM.GCROCKSTDEV IS 'STANDARD DEVIATION OF NUMBER OF POINTS WITH ROCKS';

COMMENT ON COLUMN PCSDPLOTSUM.GDNONE IS 'NUMBER OF POINTS WITH NOTHING';

COMMENT ON COLUMN PCSDYEARSUM.GDNONEMEAN IS 'MEAN NUMBER OF POINTS WITH NOTHING';

COMMENT ON COLUMN PCSDYEARSUM.GDNONESTDEV IS 'STANDARD DEVIATION OF NUMBER OF POINTS WITH NOTHING';

COMMENT ON COLUMN PCSDPLOTSUM.GDOBS IS 'NUMBER OF GROUND DISTURBANCE POINTS';

COMMENT ON COLUMN PCSDPLOTSUM.GDOTHER IS 'NUMBER OF POINTS WITH OTHER DISTURBANCE';

COMMENT ON COLUMN PCSDYEARSUM.GDOTHMEAN IS 'MEAN NUMBER OF POINTS WITH OTHER DISTURBANCE';

COMMENT ON COLUMN PCSDYEARSUM.GDOTHSTDEV IS 'STANDARD DEVIATION OF NUMBER OF POINTS WITH OTHER';

COMMENT ON COLUMN PCSDPLOTSUM.GDPASS IS 'NUMBER OF POINTS WITH VEHICLE PASS DISTURBANCE';

COMMENT ON COLUMN PCSDYEARSUM.GDPASSMEAN IS 'MEAN NUMBER OF POINTS WITH VEHICLE PASS DISTURBANCE';

COMMENT ON COLUMN PCSDYEARSUM.GDPASSSTDEV IS 'STANDARD DEVIATION OF NUMBER OF POINTS WITH PASS DISTURBANCE';

COMMENT ON COLUMN PCSDPLOTSUM.GDROAD IS 'NUMBER OF POINTS WITH ROAD DISTURBANCE';

COMMENT ON COLUMN PCSDYEARSUM.GDROADMEAN IS 'MEAN NUMBER OF POINTS WITH ROAD DISTURBANCE';

COMMENT ON COLUMN PCSDYEARSUM.GDROADSTDEV IS 'STANDARD DEVIATION OF NUMBER OF POINTS WITH ROAD';

COMMENT ON COLUMN PCSDPLOTSUM.GDTRAIL IS 'NUMBER OF POINTS WITH FOOT TRAIL DISTURBANCE';

COMMENT ON COLUMN PCSDYEARSUM.GDTRAILMEAN IS 'MEAN NUMBER OF POINTS WITH FOOT TRAIL DISTURBANCE';

COMMENT ON COLUMN PCSDYEARSUM.GDTRAILSTDEV IS 'STANDARD DEVIATION OF NUMBER OF POINTS WITH FOOT';

COMMENT ON COLUMN PLOTMAPS.GENMAP IS 'GENERAL PLOT LOCATION MAP';

COMMENT ON COLUMN PLNTLIST.GENUS IS 'SPECIES GENUS';

COMMENT ON COLUMN VERTLIST.GENUS IS 'SPECIES GENUS';

COMMENT ON COLUMN HERBRIUM.GENUS IS 'SPECIES GENUS';

COMMENT ON COLUMN GNDCOV_CODE.GNDCOV IS 'MONITORING GROUND COVER CODE';

COMMENT ON COLUMN LINEMON.GNDCOV IS 'MONITORING GROUND COVER CODE';

COMMENT ON COLUMN GNDCOV_CODE.GNDCOV_DEF IS 'MONITORING GROUND COVER CODE DEFINITION';

COMMENT ON COLUMN GNDCOV_CODE.GNDCOV_NOTE IS 'GROUND COVER CATEGORY NOTE';

COMMENT ON COLUMN LANDUSEYEARSUM.GRAZING IS 'NUMBER OF PLOTS WITH GRAZING';

COMMENT ON COLUMN LANDUSEYEARSUM.GULLY IS 'NUMBER OF PLOTS WITH GULLY EROSION';

COMMENT ON COLUMN TACTCONC.H00TO05 IS 'NUMBER OF LOCATION WITH HERBACEOUS COVER IN 0 TO 5';

COMMENT ON COLUMN TACTCONC.H06TO10 IS 'NUMBER OF LOCATION WITH HERBACEOUS COVER IN 6 TO 10';

COMMENT ON COLUMN TACTCONC.H11TO15 IS 'NUMBER OF LOCATION WITH HERBACEOUS COVER IN 11 TO 15';

COMMENT ON COLUMN TACTCONC.H16TO20 IS 'NUMBER OF LOCATION WITH HERBACEOUS COVER IN 16 TO 20';

COMMENT ON COLUMN TACTCONC.H21TO40 IS 'NUMBER OF LOCATION WITH HERBACEOUS COVER IN 0 TO 5';

COMMENT ON COLUMN TACTCONC.H41TO60 IS 'NUMBER OF LOCATION WITH HERBACEOUS COVER IN 41 TO 60';

COMMENT ON COLUMN TACTCONC.H61TO85 IS 'NUMBER OF LOCATION WITH HERBACEOUS COVER IN 61 TO 85';

COMMENT ON COLUMN EROSION.HABDIVIS IS 'HABITAT DIVISOR IN USLE';

COMMENT ON COLUMN HERBRIUM.HABIT IS 'HABIT CODE, FROM PLANTS';

COMMENT ON COLUMN LANDUSEYEARSUM.HAY IS 'NUMBER OF PLOTS WITH HAY USE';

COMMENT ON COLUMN HERPSURV.HERPNOTE IS 'PLOT NOTE FOR HERP SURVEY';

COMMENT ON COLUMN TACTCONC.HGT85 IS 'NUMBER OF LOCATION WITH HERBACEOUS COVER GREATER THAN 85';

COMMENT ON COLUMN TACTCONA.HT1TO2 IS 'NUMBER OF HITS IN HEIGHT CATEGORY 1 TO 2 M';

COMMENT ON COLUMN TACTCONA.HT2TO3 IS 'NUMBER OF HITS IN HEIGHT CATEGORY 2 TO 3 M';

COMMENT ON COLUMN TACTCONA.HT3TO4 IS 'NUMBER OF HITS IN HEIGHT CATEGORY 3 TO 4 M';
COMMENT ON COLUMN TACTCONA.HTGT4 IS 'NUMBER OF HITS IN HEIGHT CATEGORY GREATER THAN 4 M';
COMMENT ON COLUMN TACTCONA.HTMINTO1 IS 'NUMBER OF HITS IN HEIGHT CATEGORY MINIMUM TO 1 M';
COMMENT ON COLUMN TACTCONC.HWDIV IS 'HARDWOOD DIVERSITY INDEX';
COMMENT ON COLUMN TACTCONC.HWEVEN IS 'HARDWOOD EVENNESS INDEX';
COMMENT ON COLUMN ENVCONST.IMPACT IS 'IMPACT ON TRAINING';
COMMENT ON COLUMN INSTMAST.INLOC IS 'INSTALLATION LOCATION';
COMMENT ON COLUMN INSTMAST.INNAME IS 'INSTALLATION NAME';
COMMENT ON COLUMN INSTMAST.INSIZE IS 'INSTALLATION SIZE';
COMMENT ON COLUMN AERCOVER.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN BASALA.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN BELTMON.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN BELTSURV.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN BELTTRAN.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN BIRDS.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN COMMCLASSPLOTSUM.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN EROSEVID.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN EROSION.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN F_COUNT.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN GNDCOVER.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN HERPS.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN HISTORY.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN INSTMAST.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN LANDUSE.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN LANDUSEYEARSUM.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN LINEMON.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN MAINTACT.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN MAMMALS.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN PCSDPLOTSUM.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN PCSDYEARSUM.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN PCTTYEARSUM.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN PLOTMAPS.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN PLOTMAST.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN PLOTSURV.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN SOILS.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN SOILSMPL.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN TACTCONA.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN TACTCONB.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN TACTCONC.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN BIRDSURV.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN HERPSURV.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN MAMSURV.INSTALID IS 'INSTALLATION CODE';

COMMENT ON COLUMN ENVCONST.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN GROUPING.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN HERBRIUM.INSTALID IS 'INSTALLATION CODE';
COMMENT ON COLUMN HISTORY.INSTNOTE IS 'INSTALLATION NOTE';
COMMENT ON COLUMN PLOTSURV.INVTYPE IS 'INVENTORY TYPE';
COMMENT ON COLUMN EROSION.KCAL IS 'CALCULATED K VALUE (USLE FACTOR)';
COMMENT ON COLUMN EROSION.KCALEROSINDEX IS 'EROSION INDEX USING
CALCULATED K';
COMMENT ON COLUMN EROSION.KPUB IS 'SCS PUBLISHED K VALUE (USLE
FACTOR)';
COMMENT ON COLUMN EROSION.KPUBEROSINDEX IS 'EROSION INDEX USING
PUBLISHED K (USLE FACTOR)';
COMMENT ON COLUMN SOILSMPL.LABK IS 'K VALUE CALCULATED WITH SAMPLE
DATA (USLE FACTOR)';
COMMENT ON COLUMN LANDUSE.LANDUSE IS 'PLOT LAND USE CODE';
COMMENT ON COLUMN LANDUSE_CODE.LANDUSE IS 'PLOT LAND USE CODE';
COMMENT ON COLUMN LANDUSE_CODE.LANDUSE_DEF IS 'LANDUSE CODE
DEFINITION';
COMMENT ON COLUMN LANDUSE_CODE.LANDUSE_NOTE IS 'NOTE ON LANDUSE
CODE';
COMMENT ON COLUMN LANDUSEYEARSUM.LEALLOBS IS 'NUMBER OF PLOTS WITH
LAND USE SHOWING EROSION EVIDENCE';
COMMENT ON COLUMN LANDUSEYEARSUM.LEALLVIS IS 'NUMBER OF PLOTS WITH
LAND USE OTHER THAN NONE SHOWING EROSION EVIDENCE';
COMMENT ON COLUMN LANDUSEYEARSUM.LEWAOBS IS 'NUMBER OF PLOTS WITH
LAND USE SHOWING WATER EROSION EVIDENCE';
COMMENT ON COLUMN LANDUSEYEARSUM.LEWAVIS IS 'NUMBER OF PLOTS WITH
LAND USE OTHER THAN NONE SHOWING WATER EROSION EVIDENCE';
COMMENT ON COLUMN LANDUSEYEARSUM.LEWIOBS IS 'NUMBER OF PLOTS WITH
LAND USE SHOWING WIND EROSION EVIDENCE';
COMMENT ON COLUMN LANDUSEYEARSUM.LEWIVIS IS 'NUMBER OF PLOTS WITH
LAND USE OTHER THAN NONE SHOWING WIND EROSION EVIDENCE';
COMMENT ON COLUMN PLNTLIST.LIFE IS 'PLANT LIFE PATTERN';
COMMENT ON COLUMN TACTCONA.LIFEFORM IS 'PLANT LIFE FORM CATEGORY';
COMMENT ON COLUMN TACTCONB.LIFEFORM IS 'PLANT LIFE FORM CATEGORY';
COMMENT ON COLUMN HERPSURV.LOC IS 'LINE TRANSECT LOCATION OF HERP
TRAP';
COMMENT ON COLUMN HERBRIUM.LOCALITY IS 'DESCRIPTION OF GEOGRAPHIC
AREA WHERE COLLECTED';
COMMENT ON COLUMN PLOTMAPS.LOCMAP IS 'SPECIFIC LOCATION MAP';
COMMENT ON COLUMN EROSION.LS0 IS 'LS AT TRANSECT LOCATION 0 (USLE
FACTOR)';
COMMENT ON COLUMN EROSION.LS1 IS 'LS AT TRANSECT LOCATION 50 (USLE
FACTOR)';

COMMENT ON COLUMN EROSION.LS2 IS 'LS AT TRANSECT LOCATION 100 (USLE FACTOR)';

COMMENT ON COLUMN EROSION.LSM IS 'MEAN LS OF 3 TRANSECTS (USLE FACTOR)';

COMMENT ON COLUMN MAINTACT.MAINNOTE IS 'PLOT MAINTENANCE NOTE';

COMMENT ON COLUMN MAINTACT.MAINTAIN IS 'PLOT MAINTENANCE CODE';

COMMENT ON COLUMN MAINT_CODE.MAINTAIN IS 'PLOT MAINTENANCE CODE';

COMMENT ON COLUMN MAINT_CODE.MAINTAIN_DEF IS 'MAINTENANCE CODE DEFINITION';

COMMENT ON COLUMN MAINT_CODE.MAINTAIN_NOTE IS 'MAINTENANCE ACTIVITY CODE NOTE';

COMMENT ON COLUMN MAMSURV.MAMNOTE IS 'PLOT NOTE FOR MAMMAL SURVEY';

COMMENT ON COLUMN LANDUSEYEARSUM.MANONE IS 'NUMBER OF PLOTS WITH NO MAINTENANCE ACTIVITY';

COMMENT ON COLUMN LANDUSEYEARSUM.MAOBS IS 'NUMBER OF PLOTS WITH MAINTENANCE RECORDED';

COMMENT ON COLUMN LANDUSEYEARSUM.MAOTHER IS 'NUMBER OF PLOTS WITH "OTHER" MAINTENANCE';

COMMENT ON COLUMN BIRDS.MATED_STATUS IS 'CODE OF BIRD SPECIES MATED STATUS';

COMMENT ON COLUMN MATED_STATUS_CODE.MATED_STATUS IS 'CODE OF BIRD SPECIES MATED STATUS';

COMMENT ON COLUMN COMMCLASSPLOTSUM.MCCCODE IS 'MOST COMMON COMMUNITY (MCC) CLASSIFICATION CODE';

COMMENT ON COLUMN COMMCLASSPLOTSUM.MCCTYPE IS 'MOST COMMON COMMUNITY (MCC) CLASSIFICATION TYPE';

COMMENT ON COLUMN LANDUSEYEARSUM.MEALLOBS IS 'NUMBER OF PLOTS WITH MAINTENANCE ACTIVITIES SHOWING EROSION EVIDENCE';

COMMENT ON COLUMN LANDUSEYEARSUM.MEALLVIS IS 'NUMBER OF PLOTS WITH MAINTENANCE ACTIVITIES OTHER THAN NONE SHOWING EROSION EVIDENCE';

COMMENT ON COLUMN BIRDS.MEASURE_PT IS 'LINE LOCATION OF BIRD SURVEY DATA LOCATION';

COMMENT ON COLUMN POINT_CODE.MEASURE_PT IS 'LINE LOCATION OF BIRD SURVEY DATA LOCATION';

COMMENT ON COLUMN HERPS.METHOD IS 'VERTEBRATE COLLECTION METHOD';

COMMENT ON COLUMN MAMMALS.METHOD IS 'VERTEBRATE COLLECTION METHOD';

COMMENT ON COLUMN METHODS_CODE.METHOD IS 'VERTEBRATE COLLECTION METHOD';

COMMENT ON COLUMN METHODS_CODE.METHOD_DEF IS 'VERTEBRATE COLLECTION METHOD CODE DEFINITION';

COMMENT ON COLUMN METHODS_CODE.METHOD_NOTE IS 'VERTEBRATE COLLECTION NOTES';

COMMENT ON COLUMN LANDUSEYEARSUM.MEWAOBS IS 'NUMBER OF PLOTS WITH MAINTENANCE ACTIVITIES SHOWING WATER EROSION EVIDENCE';

COMMENT ON COLUMN LANDUSEYEARSUM.MEWAVIS IS 'NUMBER OF PLOTS WITH MAINTENANCE ACTIVITIES OTHER THAN NONE SHOWING WATER EROSION EVIDENCE';

COMMENT ON COLUMN LANDUSEYEARSUM.MEWIOBS IS 'NUMBER OF PLOTS WITH MAINTENANCE ACTIVITIES SHOWING WIND EROSION EVIDENCE';

COMMENT ON COLUMN LANDUSEYEARSUM.MEWIVIS IS 'NUMBER OF PLOTS WITH MAINTENANCE ACTIVITIES OTHER THAN NONE SHOWING WIND EROSION EVIDENCE';

COMMENT ON COLUMN PLOTMAPS.MISCMAP IS 'ADDITIONAL MAPS';

COMMENT ON COLUMN ENVCONST.MITIGATION IS 'MITIGATION STRATEGIES';

COMMENT ON COLUMN LANDUSEYEARSUM.MNONE IS 'NUMBER OF PLOTS WITH NO MILITARY ACTIVITY';

COMMENT ON COLUMN LANDUSEYEARSUM.MOBS IS 'NUMBER OF PLOTS WITH MILITARY ACTIVITY RECORDED';

COMMENT ON COLUMN LANDUSEYEARSUM.MOTHER IS 'NUMBER OF PLOTS WITH "OTHER" MIL ACTIVITY';

COMMENT ON COLUMN LANDUSEYEARSUM.MOW IS 'NUMBER OF PLOTS WITH MOWING';

COMMENT ON COLUMN SOILSMPL.MSAND IS 'SOIL ANALYSIS OF MEDIUM SAND';

COMMENT ON COLUMN MATED_STATUS_CODE.MSTATUS_DEF IS 'BIRD SPECIES MATED STATUS CODE';

COMMENT ON COLUMN MATED_STATUS_CODE.MSTATUS_NOTE IS 'MATED STATUS CODE NOTE';

COMMENT ON COLUMN LANDUSEYEARSUM.NMNONE IS 'NUMBER OF PLOTS WITH NO NONMILITARY ACTIVITY';

COMMENT ON COLUMN LANDUSEYEARSUM.NMOBS IS 'NUMBER OF PLOTS WITH NONMILITARY ACTIVITY RECORDED';

COMMENT ON COLUMN LANDUSEYEARSUM.NMOTHER IS 'NUMBER OF PLOTS WITH NONMILITARY "OTHER" ACTIVITY';

COMMENT ON COLUMN BIRDS.NUM IS 'NUMBER OF BIRD, MAMMAL, OR HERP SPECIES SITED/TRAPPED';

COMMENT ON COLUMN HERPS.NUM IS 'NUMBER OF BIRD, MAMMAL, OR HERP SPECIES SITED/TRAPPED';

COMMENT ON COLUMN MAMMALS.NUM IS 'NUMBER OF BIRD, MAMMAL, OR HERP SPECIES SITED/TRAPPED';

COMMENT ON COLUMN PCTTYEARSUM.OBS IS 'TOTAL NUMBER OF OBSERVATION PER GROUP';

COMMENT ON COLUMN BELTTRAN.OPT_REAL IS 'OPTIONAL BELT VARIABLE, USUALLY DBH';

COMMENT ON COLUMN GNDCOVER.OPT_TEXT IS 'OPTIONAL LINE VARIABLE';

COMMENT ON COLUMN LINEMON.OPT_TEXT IS 'OPTIONAL LINE VARIABLE';

COMMENT ON COLUMN F_COUNT.OPT_TEXT1 IS 'OPTIONAL VARIABLE 1';

COMMENT ON COLUMN F_COUNT.OPT_TEXT2 IS 'OPTIONAL VARIABLE 2';

COMMENT ON COLUMN F_COUNT.OPT_TEXT3 IS 'OPTIONAL VARIABLE 3';
COMMENT ON COLUMN F_COUNT.OPT_TEXT4 IS 'OPTIONAL VARIABLE 4';
COMMENT ON COLUMN F_COUNT.OPT_TEXT5 IS 'OPTIONAL VARIABLE 5';
COMMENT ON COLUMN VERTLIST.ORDERS IS 'ORDER OF THE SPECIES';
COMMENT ON COLUMN SOILSMPL.ORGCARB IS 'WALKLEY-BLACK ORGANIC CARBON';
COMMENT ON COLUMN SOILSMPL.ORMATT IS 'SOIL ANALYSIS OF ORGANIC MATTER';
COMMENT ON COLUMN PLNTLIST.ORIGIN IS 'PLANT ORIGIN (NATIVE:INTROD)';
COMMENT ON COLUMN COMMCLASSPLOTSUM.PADB IS 'PRESENCE:ABSENCE (PA) DWARFSHRUB BROADLEAF';
COMMENT ON COLUMN COMMCLASSPLOTSUM.PADC IS 'PRESENCE:ABSENCE (PA) DWARFSHRUB CONIFER';
COMMENT ON COLUMN EROSION.PAERCOV IS 'PERCENT AERIAL COVER';
COMMENT ON COLUMN COMMCLASSPLOTSUM.PAFA IS 'PRESENCE:ABSENCE (PA) FORB ANNUAL';
COMMENT ON COLUMN COMMCLASSPLOTSUM.PAFP IS 'PRESENCE:ABSENCE (PA) FORB PERENNIAL';
COMMENT ON COLUMN COMMCLASSPLOTSUM.PAGA IS 'PRESENCE:ABSENCE (PA) GRASS ANNUAL';
COMMENT ON COLUMN COMMCLASSPLOTSUM.PAGP IS 'PRESENCE:ABSENCE (PA) GRASS PERENNIAL';
COMMENT ON COLUMN COMMCLASSPLOTSUM.PAH IS 'PRESENCE:ABSENCE (PA) HALFSHRUB';
COMMENT ON COLUMN CLIMATEDATA.PANEVAP IS 'PAN EVAPORATION';
COMMENT ON COLUMN COMMCLASSPLOTSUM.PASB IS 'PRESENCE:ABSENCE (PA) SHRUB BROADLEAF';
COMMENT ON COLUMN COMMCLASSPLOTSUM.PASC IS 'PRESENCE:ABSENCE (PA) SHRUB CONIFER';
COMMENT ON COLUMN COMMCLASSPLOTSUM.PATB IS 'PRESENCE:ABSENCE (PA) TREE BROADLEAF';
COMMENT ON COLUMN COMMCLASSPLOTSUM.PATC IS 'PRESENCE:ABSENCE (PA) TREE CONIFER';
COMMENT ON COLUMN COMMCLASSPLOTSUM.PCCCODE IS 'PLANT COMMUNITY CODE CLASSIFICATION';
COMMENT ON COLUMN COMMCLASSPLOTSUM.PCCTYPE IS 'PLANT COMMUNITY TYPE CLASSIFICATION';
COMMENT ON COLUMN EROSION.PCTTKCAL IS 'USLE PERCENT OF T USING KCAL';
COMMENT ON COLUMN EROSION.PCTTKPUB IS 'USLE PERCENT OF T USING KPUB';
COMMENT ON COLUMN BIRDS.PERIOD IS 'PERIOD OF MEASUREMENTS (AM OR PM)';
COMMENT ON COLUMN SOILSMPL.PERM_CLASS IS 'SOIL PERMEABILITY CLASS';
COMMENT ON COLUMN EROSION.PGNDCOV IS 'PERCENT GROUND COVER';
COMMENT ON COLUMN SOILSMPL.PH1TO1 IS 'PH, 1:1 SOIL-WATER SUSPENSION';
COMMENT ON COLUMN SOILSMPL.PH1TO2 IS 'PH, 1:2 SOIL-CACL2 SUSPENSION';
COMMENT ON COLUMN PLOTMAPS.PHOTOS IS 'PLOT PHOTOS';

COMMENT ON COLUMN LANDUSEYEARSUM.PLANT IS 'NUMBER OF PLOTS WITH PLANTING';
COMMENT ON COLUMN BELTTRAN.PLANTHT IS 'BELT TRANSECT PLANT HEIGHT';
COMMENT ON COLUMN PLOTMAST.PLDATE IS 'INITIAL PLOT ALLOCATION DATE';
COMMENT ON COLUMN AERCOVER.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN BASALA.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN BELTMON.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN BELTSURV.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN BELTTRAN.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN BIRDS.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN COMMCLASSPLOTSUM.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN EROSEVID.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN EROSION.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN F_COUNT.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN GNDCOVER.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN HERPS.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN LANDUSE.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN LINEMON.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN MAINTACT.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN MAMMALS.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN PCSDPLOTSUM.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN PLOTMAPS.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN PLOTMAST.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN PLOTSURV.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN SOILS.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN SOILSMPL.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN TACTCONA.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN TACTCONB.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN TACTCONC.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN BIRDSURV.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN HERPSURV.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN MAMSURV.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN GROUPING.PLOTID IS 'PLOT IDENTIFICATION NUMBER';
COMMENT ON COLUMN PLOTSURV.PLOTNOTE IS 'PLOT COMMENTS';
COMMENT ON COLUMN PCSDPLOTSUM.PLOTTYPE IS 'PLOTS CORE:SPECIAL USE FLAG';
COMMENT ON COLUMN PLOTSURV.PLOTTYPE IS 'PLOTS CORE:SPECIAL USE FLAG';
COMMENT ON COLUMN BIRDSURV.PLOTTYPE IS 'PLOTS CORE:SPECIAL USE FLAG';
COMMENT ON COLUMN HERPSURV.PLOTTYPE IS 'PLOTS CORE:SPECIAL USE FLAG';
COMMENT ON COLUMN MAMSURV.PLOTTYPE IS 'PLOTS CORE:SPECIAL USE FLAG';
COMMENT ON COLUMN POINT_CODE.POINT_DEF IS 'LINE LOCATION CODE OF BIRD SURVEY DATA DEFINITION';
COMMENT ON COLUMN POINT_CODE.POINT_NOTE IS 'NOTE ON MEASURE_PT CODE';

COMMENT ON COLUMN LANDUSEYEARSUM.PREBURN IS 'NUMBER OF PLOTS WITH
PRESCRIBED BURN';
COMMENT ON COLUMN MAMSURV.PRECIP IS 'PRECIPITATION IN INCHES';
COMMENT ON COLUMN SOILMAST.PUBLK IS 'SCS PUBLISHED K FOR SOIL SERIES
(USLE FACTOR)';
COMMENT ON COLUMN TACTCONB.R00TO05 IS 'NUMBER IN HEIGHT CATEGORY 0
TO 5 DM';
COMMENT ON COLUMN TACTCONB.R06TO10 IS 'NUMBER IN HEIGHT CATEGORY 6
TO 10 DM';
COMMENT ON COLUMN TACTCONB.R11TO15 IS 'NUMBER IN HEIGHT CATEGORY 11
TO 15 DM';
COMMENT ON COLUMN TACTCONB.R16TO20 IS 'NUMBER IN HEIGHT CATEGORY 16
TO 20 DM';
COMMENT ON COLUMN TACTCONB.R21TO40 IS 'NUMBER IN HEIGHT CATEGORY 21
TO 40 DM';
COMMENT ON COLUMN TACTCONB.R41TO60 IS 'NUMBER IN HEIGHT CATEGORY 41
TO 60 DM';
COMMENT ON COLUMN TACTCONB.R61TO85 IS 'NUMBER IN HEIGHT CATEGORY 61
TO 85 DM';
COMMENT ON COLUMN CLIMATEDATA.RAIN IS 'WEEKLY RAIN FALL';
COMMENT ON COLUMN ENVCONST.REALISM IS 'LOSS OF TRAINING REALISM';
COMMENT ON COLUMN AERCOVER.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN BASALA.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN BELTMON.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN BELTSURV.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN BELTRAN.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN BIRDS.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN CLIMATEDATA.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN EROSEVID.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN F_COUNT.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN GNDCOVER.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN HERPS.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN HISTORY.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN LANDUSE.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN LINEMON.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN MAINTACT.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN MAMMALS.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN PLOTSURV.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN SOILS.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN BIRDSURV.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN HERPSURV.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN MAMSURV.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN ENVCONST.RECDATE IS 'PLOT SURVEY DATE';
COMMENT ON COLUMN HISTORY.RECORDER IS 'PLOT RECORDER';
COMMENT ON COLUMN PLOTSURV.RECORDER IS 'PLOT RECORDER';

COMMENT ON COLUMN ENVCONST.RESEARCH IS 'RESEARCH NEEDS';
COMMENT ON COLUMN ENVCONST.RESTRAINT IS 'ENVIRONMENTAL
CONSTRAINT/RESTRAINT';
COMMENT ON COLUMN HERPS.RETRAP IS 'NUMBER OF RETRAPPED MAMMALS OR
HERPS';
COMMENT ON COLUMN MAMMALS.RETRAP IS 'NUMBER OF RETRAPPED MAMMALS
OR HERPS';
COMMENT ON COLUMN TACTCONB.RGT85 IS 'NUMBER IN HEIGHT CATEGORY
GREATER THAN 85 DM';
COMMENT ON COLUMN EROSION.RVAL IS 'R VALUE FOR RECORDER';
COMMENT ON COLUMN PLOTMAST.RVAL IS 'R VALUE FOR RECORDER';
COMMENT ON COLUMN LANDUSEYEARSUM.SCOURING IS 'NUMBER OF PLOTS WITH
SCOURING EROSION';
COMMENT ON COLUMN LANDUSEYEARSUM.SEED IS 'NUMBER OF PLOTS WITH
SEEDING';
COMMENT ON COLUMN HERPS.SEX IS 'WILDLIFE GENDER CODE';
COMMENT ON COLUMN MAMMALS.SEX IS 'WILDLIFE GENDER CODE';
COMMENT ON COLUMN GENDER_CODE.SEX IS 'WILDLIFE GENDER CODE';
COMMENT ON COLUMN GENDER_CODE.SEX_DEF IS 'GENDER CODE DEFINITION';
COMMENT ON COLUMN GENDER_CODE.SEX_NOTE IS 'NOTE ON GENDER CODE';
COMMENT ON COLUMN LANDUSEYEARSUM.SHEET IS 'NUMBER OF PLOTS WITH
SHEET EROSION';
COMMENT ON COLUMN BELTSURV.SIDE IS 'PLANT BELT SIDE LOCATION';
COMMENT ON COLUMN BELTTRAN.SIDE IS 'PLANT BELT SIDE LOCATION';
COMMENT ON COLUMN BELTTRAN.SIDEDIST IS 'PLANT BELT SIDE DISTANCE';
COMMENT ON COLUMN SOILS.SLOPE IS 'PLOT SLOPE';
COMMENT ON COLUMN SOILS.SLPLEN IS 'PLOT SLOPE LENGTH';
COMMENT ON COLUMN SOILMAST.SOILCAT IS 'SOIL CATEGORY NUMBER FOR
RUNNING GRASS OUTPUT';
COMMENT ON COLUMN PLOTSURV.SOILDPTH IS 'AVERAGE PLOT SOIL DEPTH';
COMMENT ON COLUMN SOILMAST.SOILNAME IS 'PLOT SOIL SERIES NAME';
COMMENT ON COLUMN SOILSMPL.SOILNOTE IS 'MISC. SOIL NOTES';
COMMENT ON COLUMN PLOTMAST.SOILSER IS 'PLOT SOIL SERIES CODE';
COMMENT ON COLUMN SOILMAST.SOILSER IS 'PLOT SOIL SERIES CODE';
COMMENT ON COLUMN HERBRIUM.SOILTOPO IS 'GEOLOGY, SOIL, TOPOGRAPHY';
COMMENT ON COLUMN PLNTLIST.SPEC IS 'SPECIES NAME';
COMMENT ON COLUMN VERTLIST.SPEC IS 'SPECIES NAME';
COMMENT ON COLUMN HERBRIUM.SPECIES IS 'HERBRIUM TABLE SPECIES
INFORMATION (EXTENDED)';
COMMENT ON COLUMN TACTCONC.SPPDIV IS 'PLANT SPECIES DIVERSITY INDEX';
COMMENT ON COLUMN TACTCONC.SPPEVEN IS 'PLANT SPECIES EVENNESS INDEX';
COMMENT ON COLUMN TACTCONC.SPPRICH IS 'PLANT SPECIES RICHNESS';

COMMENT ON COLUMN HERBRIUM.STATESTAT IS 'CURRENT STATUS AS STATE
ENDANGERED (SE), OTHER STATE STATUS';
COMMENT ON COLUMN STATE_STATUS.STATESTAT IS 'CURRENT STATUS AS STATE
ENDANGERED (SE), OTHER STATE STATUS';
COMMENT ON COLUMN STATE_STATUS.STATESTAT_DEF IS 'STATE STATUS CODE
DEFINITION';
COMMENT ON COLUMN STATE_STATUS.STATESTAT_NOTE IS 'STATE STATUS CODE
NOTES';
COMMENT ON COLUMN CLIMATEDATA.STATION IS 'CLIMATE STATION ID';
COMMENT ON COLUMN CLIMATESTATIONS.STATION IS 'CLIMATE STATION ID';
COMMENT ON COLUMN CLIMATESTATIONS.STATIONNAME IS 'CLIMATE STATION
NAME';
COMMENT ON COLUMN EROSEVID.STATUS IS 'OBSERVED EROSION STATUS CODE';
COMMENT ON COLUMN EROS_CODE.STATUS IS 'OBSERVED EROSION STATUS CODE';
COMMENT ON COLUMN EROS_CODE.STATUS_DEF IS 'OBSERVED EROSION CODE
DEFINITION';
COMMENT ON COLUMN EROS_CODE.STATUS_NOTE IS 'NOTE ON EROSION STATUS
CODE';
COMMENT ON COLUMN TACTCONC.STRDIV IS 'STRUCTURAL DIVERSITY INDEX';
COMMENT ON COLUMN TACTCONC.STREVEN IS 'STRUCTURAL DIVERSITY
EVENNESS';
COMMENT ON COLUMN SOILSMPL.STRUCT_CODE IS 'SOIL STRUCTURE CODE USED
TO CALCULATE K-VALUE';
COMMENT ON COLUMN VERTLIST.SUBFAM IS 'VERTEBRATE SUBFAMILY';
COMMENT ON COLUMN VERTLIST.SUBORDER IS 'VERTEBRATE SUBORDER';
COMMENT ON COLUMN PLNTLIST.SUBSPEC IS 'PLANT SUBSPECIES';
COMMENT ON COLUMN PLOTSURV.SURVEYOR IS 'PLOT SURVEYOR';
COMMENT ON COLUMN HERBRIUM.SYNAUTH IS 'AUTHOR OF SYNONYM VARIETY
OR SUBSPECIES';
COMMENT ON COLUMN HERBRIUM.SYNGENUS IS 'SYNONYM GENUS';
COMMENT ON COLUMN PLNTLIST.SYNON IS 'PLANT SYNONYM';
COMMENT ON COLUMN HERBRIUM.SYNSP IS 'SYNONYM SPECIES';
COMMENT ON COLUMN HERBRIUM.SYNVARAUTH IS 'AUTHOR OF SYNONYM
VARIETY OR SUBSPECIES';
COMMENT ON COLUMN HERBRIUM.SYNVAR_SSP IS 'SYNONYM VARIETY OR
SUBSPECIES';
COMMENT ON COLUMN EROSION.T IS 'SOIL SERIES T VALUE';
COMMENT ON COLUMN SOILMAST.T IS 'SOIL SERIES T VALUE';
COMMENT ON COLUMN PCTTYEARSUM.T00TO50 IS 'PERCENT OF PLOTS WITH T
VALUES FROM 0 TO 50';
COMMENT ON COLUMN PCTTYEARSUM.T100TO150 IS 'PERCENT OF PLOTS WITH T
VALUES FROM 100 TO 150';

COMMENT ON COLUMN PCTTYEARSUM.T150TO200 IS 'PERCENT OF PLOTS WITH T VALUES FROM 150 TO 200';

COMMENT ON COLUMN PCTTYEARSUM.T50TO100 IS 'PERCENT OF PLOTS WITH T VALUES FROM 50 TO 100';

COMMENT ON COLUMN COMMCLASSPLOTSUM.TCDB IS 'TOTAL COUNT DWARFSHRUB BROADLEAF';

COMMENT ON COLUMN COMMCLASSPLOTSUM.TCDC IS 'TOTAL COUNT DWARFSHRUB CONIFER';

COMMENT ON COLUMN COMMCLASSPLOTSUM.TCFA IS 'TOTAL COUNT FORB ANNUAL';

COMMENT ON COLUMN COMMCLASSPLOTSUM.TCFP IS 'TOTAL COUNT FORB PERENNIAL';

COMMENT ON COLUMN COMMCLASSPLOTSUM.TCGA IS 'TOTAL COUNT GRASS ANNUAL';

COMMENT ON COLUMN COMMCLASSPLOTSUM.TCGP IS 'TOTAL COUNT GRASS PERENNIAL';

COMMENT ON COLUMN COMMCLASSPLOTSUM.TCH IS 'TOTAL COUNT HALFSHRUB';

COMMENT ON COLUMN COMMCLASSPLOTSUM.TCSB IS 'TOTAL COUNT SHRUB BROADLEAF';

COMMENT ON COLUMN COMMCLASSPLOTSUM.TCSC IS 'TOTAL COUNT SHRUB CONIFER';

COMMENT ON COLUMN COMMCLASSPLOTSUM.TCTB IS 'TOTAL COUNT TREE BROADLEAF';

COMMENT ON COLUMN COMMCLASSPLOTSUM.TCTC IS 'TOTAL COUNT TREE CONIFER';

COMMENT ON COLUMN BIRDSURV.TEMP IS 'TEMPERATURE';

COMMENT ON COLUMN CLIMATEDATA.TEMPMAX IS 'MAXIMUM TEMPERATURE';

COMMENT ON COLUMN HERPSURV.TEMPMAX IS 'MAXIMUM TEMPERATURE';

COMMENT ON COLUMN MAMSURV.TEMPMAX IS 'MAXIMUM TEMPERATURE';

COMMENT ON COLUMN CLIMATEDATA.TEMPMIN IS 'MINIMUM TEMPERATURE';

COMMENT ON COLUMN HERPSURV.TEMPMIN IS 'MINIMUM TEMPERATURE';

COMMENT ON COLUMN MAMSURV.TEMPMIN IS 'MINIMUM TEMPERATURE';

COMMENT ON COLUMN PCTTYEARSUM.TGT200 IS 'PERCENT OF PLOTS WITH T VALUES GREATER THAN 200';

COMMENT ON COLUMN LANDUSEYEARSUM.TILL IS 'NUMBER OF PLOTS WITH TILLAGE';

COMMENT ON COLUMN SOILSMPL.TOTCLAY IS 'PERCENT TOTAL CLAY';

COMMENT ON COLUMN SOILSMPL.TOTSAND IS 'PERCENT TOTAL SAND';

COMMENT ON COLUMN SOILSMPL.TOTSILT IS 'PERCENT TOTAL SILT';

COMMENT ON COLUMN LANDUSEYEARSUM.TRACK IS 'PERCENT OF PLOTS WITH EVIDENCE OF TRACKED VEHICLES';

COMMENT ON COLUMN PLOTSURV.TRAIN IS 'PLOT TRAINING AREA';
COMMENT ON COLUMN BASALA.TRANLOC IS 'TRANSECT LOCATION';
COMMENT ON COLUMN SOILS.TRANLOC IS 'TRANSECT LOCATION';
COMMENT ON COLUMN MAMSURV.TRAPNIGHTS IS 'NUMBER OF TRAP NIGHTS
(NUMBER OF TRAPS * NUMBER OF NIGHTS)';
COMMENT ON COLUMN MAMSURV.TRAPS IS 'TYPES OF TRAPS USED FOR SMALL
MAMMAL SURVEY';
COMMENT ON COLUMN PLNTLIST.TSTYPE IS 'BROADLEAF:CONIFEROUS TYPE';
COMMENT ON COLUMN ENVCONST.UNIT IS 'UNITS AFFECTED';
COMMENT ON COLUMN ENVCONST.UPDATENO IS 'UPDATE VERSION OF
INFORMATION';
COMMENT ON COLUMN LANDUSE.USENOTE IS 'LAND USE NOTE';
COMMENT ON COLUMN PLOTMAST.USGS IS 'USGS QUADRANGLE NAME';
COMMENT ON COLUMN EROSION.USLE0KCAL IS 'USLE (AT LOCATION 0 USING
CALCULATED K)';
COMMENT ON COLUMN EROSION.USLE0KPUB IS 'USLE (AT TRANSECT LOCATION
0 USING PUB K)';
COMMENT ON COLUMN EROSION.USLE1KCAL IS 'USLE (AT LOCATION 50 USING
CALCULATED K)';
COMMENT ON COLUMN EROSION.USLE1KPUB IS 'USLE (AT TRANSECT LOCATION
50 USING PUB K)';
COMMENT ON COLUMN EROSION.USLE2KCAL IS 'USLE (AT LOCATION 100 USING
CALCULATED K)';
COMMENT ON COLUMN EROSION.USLE2KPUB IS 'USLE (AT TRANSECT LOCATION
100 USING PUB K)';
COMMENT ON COLUMN EROSION.USLEMKCAL IS 'USLE (MEAN OF 3 TRANSECTS
USING CALCULATED K)';
COMMENT ON COLUMN EROSION.USLEMKPUB IS 'USLE (MEAN OF 3 TRANSECTS
USING PUB K)';
COMMENT ON COLUMN HERBRIUM.VARAUTH IS 'AUTHOR OF VARIETY OR
SUBSPECIES';
COMMENT ON COLUMN PLNTLIST.VARIETY IS 'PLANT VARIETY';
COMMENT ON COLUMN HERBRIUM.VAR_SSP IS 'VARIETY OR SUBSPECIES';
COMMENT ON COLUMN SOILSMPL.VCSAND IS 'SOIL ANALYSIS OF VERY COARSE
SAND';
COMMENT ON COLUMN BELTMON.VEGCOND IS 'PLANT CONDITION';
COMMENT ON COLUMN BELTSURV.VEGCOND IS 'PLANT CONDITION';
COMMENT ON COLUMN BELTTRAN.VEGCOND IS 'PLANT CONDITION';
COMMENT ON COLUMN GNDCOVER.VEGCOND IS 'PLANT CONDITION';
COMMENT ON COLUMN TACTCONA.VEGCOND IS 'PLANT CONDITION';
COMMENT ON COLUMN AERCOVER.VEGHT IS 'AERIAL PLANT HEIGHT NAME';
COMMENT ON COLUMN AERCOVER.VEGID IS 'PLANT SPECIES CODE';

COMMENT ON COLUMN BELTMON.VEGID IS 'PLANT SPECIES CODE';
COMMENT ON COLUMN BELTTRAN.VEGID IS 'PLANT SPECIES CODE';
COMMENT ON COLUMN GNDCOVER.VEGID IS 'PLANT SPECIES CODE';
COMMENT ON COLUMN PLNTLIST.VEGID IS 'PLANT SPECIES CODE';
COMMENT ON COLUMN TACTCONA.VEGID IS 'PLANT SPECIES CODE';
COMMENT ON COLUMN TACTCONB.VEGID IS 'PLANT SPECIES CODE';
COMMENT ON COLUMN HERBRIUM.VEGID IS 'PLANT SPECIES CODE';
COMMENT ON COLUMN AERCOVER.VEGLOC IS 'TRANSECT LOCATION ALONG LINE';
COMMENT ON COLUMN BELTTRAN.VEGLOC IS 'TRANSECT LOCATION ALONG LINE';
COMMENT ON COLUMN F_COUNT.VEGLOC IS 'TRANSECT LOCATION ALONG LINE';
COMMENT ON COLUMN GNDCOVER.VEGLOC IS 'TRANSECT LOCATION ALONG LINE';
COMMENT ON COLUMN LINEMON.VEGLOC IS 'TRANSECT LOCATION ALONG LINE';
COMMENT ON COLUMN PLOTSURV.VEGTYPE IS 'GENERAL PLOT VEGETATION TYPE';
COMMENT ON COLUMN BIRDS.VERTID IS 'VERTEBRATE SPECIES CODE';
COMMENT ON COLUMN HERPS.VERTID IS 'VERTEBRATE SPECIES CODE';
COMMENT ON COLUMN MAMMALS.VERTID IS 'VERTEBRATE SPECIES CODE';
COMMENT ON COLUMN VERTLIST.VERTID IS 'VERTEBRATE SPECIES CODE';
COMMENT ON COLUMN VERTLIST.VERTNOTE IS 'NOTE ABOUT THE LISTING';
COMMENT ON COLUMN VERTLIST.VERTSTAT IS 'VERTEBRATE STATUS';
COMMENT ON COLUMN SOILSMPL.VFSAND IS 'SOIL ANALYSIS OF VERY FINE SAND';
COMMENT ON COLUMN LANDUSEYEARSUM.WANONE IS 'NUMBER OF PLOTS WITH
NO WATER EROSION';
COMMENT ON COLUMN LANDUSEYEARSUM.WAOBS IS 'NUMBER OF PLOTS WITH
WATER EROSION RECORDED';
COMMENT ON COLUMN LANDUSEYEARSUM.WAPEDPLNT IS 'NUMBER OF PLOTS
WITH WATER PEDESTAL PLANT EROSION';
COMMENT ON COLUMN LANDUSEYEARSUM.WHEEL IS 'NUMBER OF PLOTS WITH
WHEEL TRAFFIC';
COMMENT ON COLUMN BIRDSURV.WIND IS 'WIND SPEED';
COMMENT ON COLUMN HERPSURV.WIND IS 'WIND SPEED';
COMMENT ON COLUMN LANDUSEYEARSUM.WINONE IS 'NUMBER OF PLOTS WITH
NO WIND EROSION';
COMMENT ON COLUMN LANDUSEYEARSUM.WIOBS IS 'NUMBER OF PLOTS WITH
WIND EROSION RECORDED';
COMMENT ON COLUMN LANDUSEYEARSUM.WIPEDPLNT IS 'NUMBER OF PLOTS
WITH WIND PEDESTAL PLANT EROSION';
COMMENT ON COLUMN SOILSMPL.WT20TO75M IS '20-75 MM WEIGHT PERCENTAGE
OF SOIL < 75 MM';
COMMENT ON COLUMN SOILSMPL.WT2TO5MM IS '2-5 MM WEIGHT PERCENTAGE OF
SOIL < 75 MM';
COMMENT ON COLUMN SOILSMPL.WT5TO20MM IS '5-20 MM WEIGHT PERCENTAGE
OF SOIL < 75 MM';
COMMENT ON COLUMN SOILSMPL.YR IS 'SAMPLE YEAR';

REMARK

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RECORD NOTE IN HISTORY TABLE THAT UPDATE WAS MADE

REPLACE ??? WITH INSTALATION ID AND ????? WITH YOUR NAME

/

INSERT INTO HISTORY (INSTALID,RECDATE,RECORDER,INSTNOTE)

VALUES (:1,:2,:3,:4)

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"???", "1994-01-01", "?????", "UPDATED LCTA DATABASE TO NEW STANDARD"

/

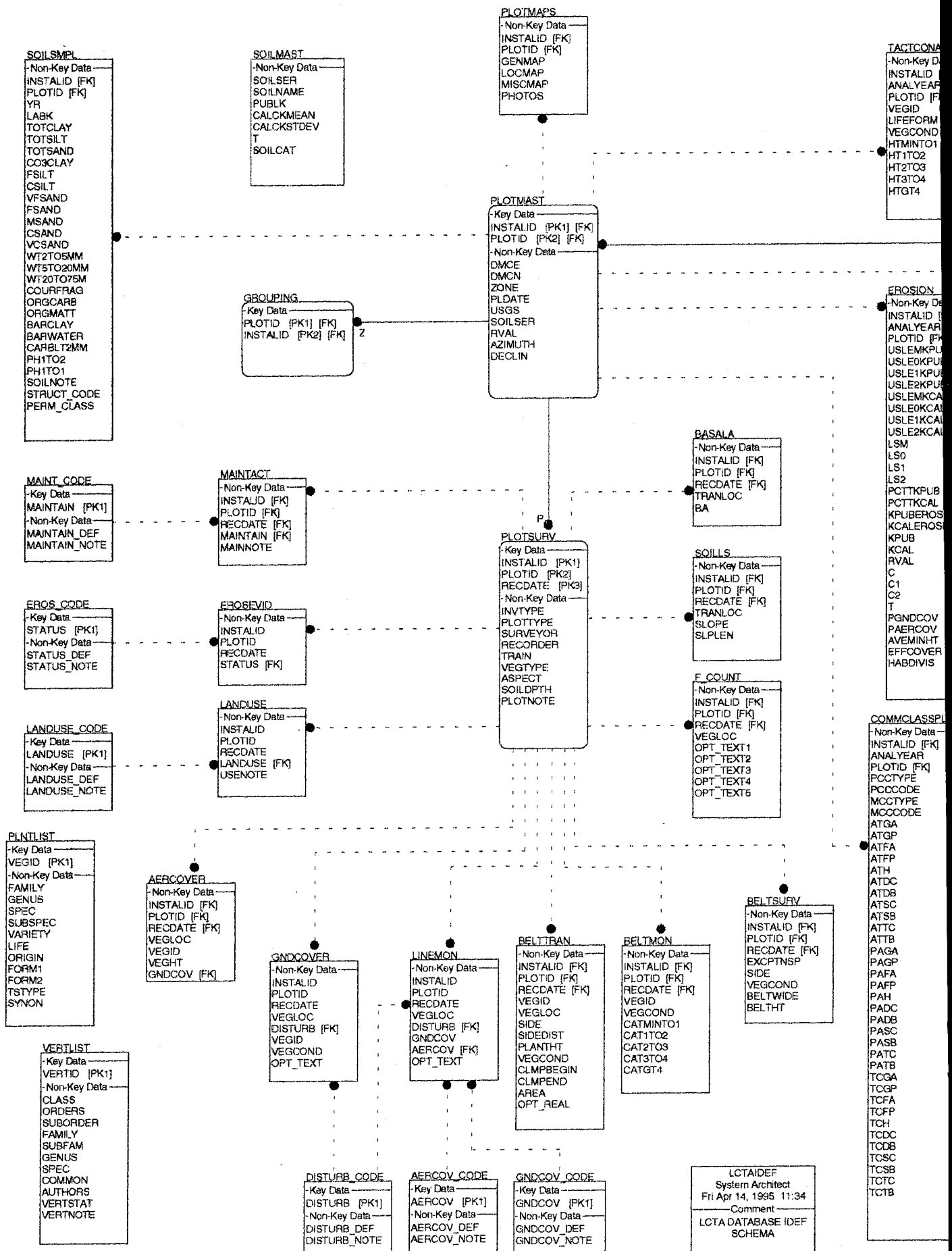
References

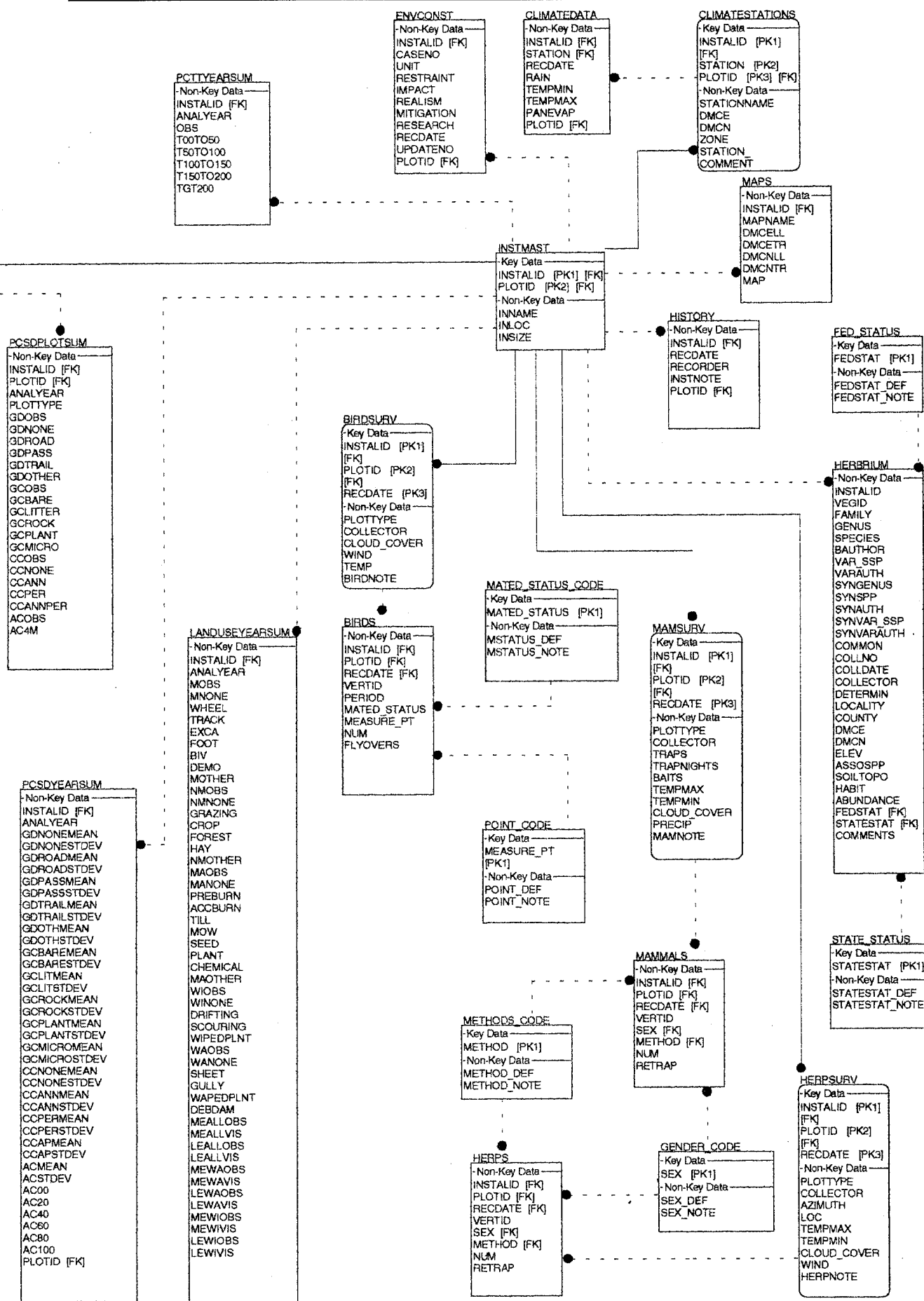
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Appendix A: Database Schema

The LCTA database schema is presented in IDEF1X format. Terms and notation are presented here.

Identifying relation	A relationship in which the primary key attributes of the parent table become part of the primary key of the child entity. Represented by a solid line between entities with a solid circle at the child entity end.
Nonidentifying relation	A relationship in which the primary key attributes of the parent do not become part of the primary key of the child. Represented by a dashed line between entities with a filled solid at the child entity end.
Independent entity	An entity that does not depend on any other for its identification. Represented by a squared corner rectangle.
Dependent entity	An entity that depends on another for its identity (the primary key of the child contains attributes inherited from the primary key of the parent). Represented by a rounded corner rectangle.
PK (primary key)	An element or group of elements that act as the unique identifier of the entity. Represented by placing [PK] to the left of the element.
FK (foreign key)	A primary key of a parent entity that is contributed to the child entity through a relationship. Represented by placing [FK] to the left of the element.





Appendix B: Entity (table) Information

Entity definitions and structures are presented in this appendix. Syntax is as follows.

TABLE NAME

Description of the data stored in the table

data structure

The data structure is presented in the format output by Systems Architect.* Each data element is followed by a "+" denoting the end of the element information. In some cases information between two "/" will appear. This shows the referential integrity constraint references. For example, INSTALID/FKFROM "PLOTSURV. INSTALID()"/+ is defined as:

the data element INSTALID is a foreign key constrained by the element INSTALID in the table PLOTSURV.

* Popkin Software and Systems Incorporated, 11 Park Place, New York, NY.

LCTA Entity Definitions

LCTA System

AERCOVER

Aerial data from initial inventory and long-term monitoring line transect

INSTALID / FKFROM "PLOTSURV.INSTALID()"/+
PLOTID / FKFROM "PLOTSURV.PLOTID()"/+
RECDATE / FKFROM "PLOTSURV.RECDATE()"/+
VEGLOC+
VEGID+
VEGHT

AERCOV_CODE

Short-term monitoring aerial cover code validation table

@1 AERCOV+
AERCOV_DEF+
AERCOV_NOTE

BASALA

Tree basal area data

INSTALID / FKFROM "PLOTSURV.INSTALID()"/+
PLOTID / FKFROM "PLOTSURV.PLOTID()"/+
RECDATE / FKFROM "PLOTSURV.RECDATE()"/+
TRANLOC+
BA

BELTMON

Short-term monitoring belt transect data (woody vegetation)

INSTALID / FKFROM "PLOTSURV.INSTALID()"/+
PLOTID / FKFROM "PLOTSURV.PLOTID()"/+
RECDATE / FKFROM "PLOTSURV.RECDATE()"/+
VEGID+
VEGCOND+
CATMINTO1+
CAT1TO2+
CAT2TO3+
CAT3TO4+
CATGT4

BELTSURV

Parameters for inventory and monitoring belt transects

INSTALID / FKFROM "PLOTSURV.INSTALID()"/+
PLOTID / FKFROM "PLOTSURV.PLOTID()"/+
RECDATE / FKFROM "PLOTSURV.RECDATE()"/+
EXCPTNSP+
SIDE+
VEGCOND+
BELTWIDE+
BELTHT

BELTTRAN

Initial inventory and long-term monitoring belt transect data (woody vegetation)

INSTALID / FKFROM "PLOTSURV.INSTALID()"/+
PLOTID / FKFROM "PLOTSURV.PLOTID()"/+
RECDATE / FKFROM "PLOTSURV.RECDATE()"/+
VEGID+
VEGLOC+
SIDE+
SIDEDIST+
PLANTHT+
VEGCOND+
CLMPBEGIN+

LCTA Entity Definitions

LCTA System

CLMPEND+
AREA+
OPT_REAL

BIRDS

Bird data from wildlife inventory

INSTALID / FKFROM "BIRDSURV.INSTALID()"/+
PLOTID / FKFROM "BIRDSURV.PLOTID()"/+
RECDATE / FKFROM "BIRDSURV.RECDATE()"/+
VERTID+
PERIOD+
MATED_STATUS / FKFROM "MATED_STATUS_CODE.MATED_STATUS()"/+
MEASURE_PT / FKFROM "POINT_CODE.MEASURE_PT()"/+
NUM+
FLYOVERS

BIRDSURV

Table identifying all inventories for bird data

@1 INSTALID / FKFROM "INSTMAST.INSTALID()"/+
@2 PLOTID+
@3 RECDATE+
PLOTTYPE+
COLLECTOR+
CLOUD_COVER+
WIND+
TEMP+
BIRDNOTE

CLIMATEDATA

Climate Data

INSTALID / FKFROM "CLIMATESTATIONS.INSTALID()"/+
STATION / FKFROM "CLIMATESTATIONS.STATION()"/+
RECDATE+
RAIN+
TEMPMIN+
TEMPMAX+
PANEVAP

CLIMATESTATIONS

Climate station information

@1 INSTALID / FKFROM "INSTMAST.INSTALID()"/+
@2 STATION+
STATIONNAME+
DMCE+
DMCN+
ZONE+
STATION_COMMENT

COMMCLASSPLOTSUM

Plant community classifications for each plot

INSTALID / FKFROM "INSTMAST.INSTALID()" FKFROM "PLOTMAST.INSTALID()"/+
ANALYEAR+
PLOTID / FKFROM "PLOTMAST.PLOTID()"/+
PCCTYPE+
PCCCODE+
MCCTYPE+
MCCCODE+
ATGA+
ATGP+
ATFA+
ATFP+

LCTA Entity Definitions

LCTA System

ATH+
ATDC+
ATDB+
ATSC+
ATSB+
ATTC+
ATTB+
PAGA+
PAGP+
PAFA+
PAFP+
PAH+
PADC+
PADB+
PASC+
PASB+
PATC+
PATB+
TCGA+
TCGP+
TCFA+
TCFP+
TCH+
TCDC+
TCDB+
TCSC+
TCSB+
TCTC+
TCTB

DISTURB_CODE

Disturbance code validation table

@1 DISTURB+
DISTURB_DEF+
DISTURB_NOTE

ENVCONST

Environmental constraints

INSTALID / FKFROM "INSTMAST.INSTALIDQ"/+
CASENO+
UNIT+
RESTRAINT+
IMPACT+
REALISM+
MITIGATION+
RESEARCH+
RECDATE+
UPDATENO

EROSEVID

Observed erosion evidence data

INSTALID / FKFROM "PLOTSURV.INSTALIDQ"/+
PLOTID / FKFROM "PLOTSURV.PLOTIDQ"/+
RECDATE / FKFROM "PLOTSURV.RECDATEQ"/+
STATUS / FKFROM "EROS_CODE.STATUSQ"/

EROSION

Table for Universal Soil Loss Equation (USLE) estimations

INSTALID / FKFROM "INSTMAST.INSTALIDQ" FKFROM "PLOTMAST.INSTALIDQ"/+
ANALYEAR+
PLOTID / FKFROM "PLOTMAST.PLOTIDQ"/+
USLEMKPUB+
USLEOKPUB+
USLEIKPUB+

LCTA Entity Definitions

LCTA System

USLE2KPUB+
USLEMKCAL+
USLE0KCAL+
USLE1KCAL+
USLE2KCAL+
LSM+
LS0+
LS1+
LS2+
PCTTKPUB+
PCTTKCAL+
KPUBEROSINDEX+
KCALEROSINDEX+
KPUB+
KCAL+
RVAL+
C+
C1+
C2+
T+
PGNDCOV+
PAERCOV+
AVEMINHT+
EFFCOVER+
HABDIVIS

EROS_CODE

Observed erosion evidence code validation table

@1 STATUS+
STATUS_DEF+
STATUS_NOTE

F_COUNT

Optional data for initial from inventory or monitoring (contains user defined attributes)

INSTALID / FKFROM "PLOTSURV.INSTALID()"+
PLOTID / FKFROM "PLOTSURV.PLOTID()"+
RECDATE / FKFROM "PLOTSURV.RECDATE()"+
VEGLOC+
OPT_TEXT1+
OPT_TEXT2+
OPT_TEXT3+
OPT_TEXT4+
OPT_TEXT5

GENDER_CODE

Wildlife gender code validation table

@1 SEX+
SEX_DEF+
SEX_NOTE

GNDCOVER

Initial inventory and long-term monitoring ground vegetation data

INSTALID / FKFROM "PLOTSURV.INSTALID()"+
PLOTID / FKFROM "PLOTSURV.PLOTID()"+
RECDATE / FKFROM "PLOTSURV.RECDATE()"+
VEGLOC+
DISTURB / FKFROM "DISTURB_CODE.DISTURB()"+
VEGID+
VEGCOND+
OPT_TEXT

GNDCOV_CODE

LCTA Entity Definitions

LCTA System

Short-term monitoring ground cover code validation table

@1 GNDCOV+
GNDCOV_DEF+
GNDCOV_NOTE

GROUPING

Dynamic table for LCTA front end routines (user defined attributes)

@1 PLOTID / FKFROM "PLOTMAST.PLOTIDQ"/+
@2 INSTALID / FKFROM "PLOTMAST.INSTALIDQ"/

HERPS

Herp data from wildlife inventory

INSTALID / FKFROM "HERPSURV.INSTALIDQ"/+
PLOTID / FKFROM "HERPSURV.PLOTIDQ"/+
RECDATE / FKFROM "HERPSURV.RECDATEQ"/+
VERTID+
SEX / FKFROM "GENDER_CODE.SEXQ"/+
METHOD / FKFROM "METHODS_CODE.METHODQ"/+
NUM+
RETRAP

HERPSURV

Table identifying all inventories for herp on each plot

@1 INSTALID / FKFROM "INSTMAST.INSTALIDQ"/+
@2 PLOTID+
@3 RECDATE+
PLOTTYPE+
COLLECTOR+
AZIMUTH+
LOC+
TEMPMAX+
TEMPMIN+
CLOUD_COVER+
WIND+
HERPNOTE

HISTORY

General informational data

INSTALID / FKFROM "INSTMAST.INSTALIDQ"/+
RECDATE+
RECORDER+
INSTNOTE

INSTMAST

Master listing of all LCTA installations

@1 INSTALID+
INNAME+
INLOC+
INSIZE

LANDUSE

Military and non-military land use data

INSTALID / FKFROM "PLOTSURV.INSTALIDQ"/+
PLOTID / FKFROM "PLOTSURV.PLOTIDQ"/+
RECDATE / FKFROM "PLOTSURV.RECDATEQ"/+
LANDUSE / FKFROM "LANDUSE_CODE.LANDUSEQ"/+
USENOTE

LCTA Entity Definitions
LCTA System

LANDUSEYEARSUM

Land use summary data by year

INSTALID / FKFROM "INSTMAST.INSTALID()"/+
ANALYEAR+
MOBS+
MNONE+
WHEEL+
TRACK+
EXCA+
FOOT+
BIV+
DEMO+
MOTHER+
NMOBS+
NMNONE+
GRAZING+
CROP+
FOREST+
HAY+
NMOTHER+
MAOBS+
MANONE+
PREBURN+
ACCBURN+
TILL+
MOW+
SEED+
PLANT+
CHEMICAL+
MAOTHER+
WIOBS+
WINONE+
DRIFTING+
SCOURING+
WIPEDPLNT+
WAOBS+
WANONE+
SHEET+
GULLY+
WAPEDPLNT+
DEBDAM+
MEALLOBS+
MEALLVIS+
LEALLOBS+
LEALLVIS+
MEWAOBS+
MEWAVIS+
LEWAOBS+
LEWAVIS+
MEWIOBS+
MEWIVIS+
LEWIOBS+
LEWIVIS

LANDUSE_CODE

Land use code validation table

@1 LANDUSE+
LANDUSE_DEF+
LANDUSE_NOTE

LINEMON

Short-term monitoring line transect data

INSTALID / FKFROM "PLOTSURV.INSTALID()"/+
PLOTID / FKFROM "PLOTSURV.PLOTID()"/+
RECDATE / FKFROM "PLOTSURV.RECDATE()"/+
VEGLOC+

LCTA Entity Definitions

LCTA System

DISTURB / FKFROM "DISTURB_CODE.DISTURB()"+
GNDCOV / FKFROM "GNDCOV_CODE.GNDCOV()"+
AERCOV / FKFROM "AERCOV_CODE.AERCOV()"+
OPT_TEXT

MAINTACT

Maintenance activity data

INSTALID / FKFROM "PLOTSURV.INSTALID()"+
PLOTID / FKFROM "PLOTSURV.PLOTID()"+
RECDATE / FKFROM "PLOTSURV.RECDATE()"+
MAINTAIN / FKFROM "MAINT_CODE.MAINTAIN()"+
MAINNOTE

MAINT_CODE

Maintenance activity code validation table

@1 MAINTAIN+
MAINTAIN_DEF+
MAINTAIN_NOTE

MAMMALS

Mammal data from wildlife inventory

INSTALID / FKFROM "MAMSURV.INSTALID()"+
PLOTID / FKFROM "MAMSURV.PLOTID()"+
RECDATE / FKFROM "MAMSURV.RECDATE()"+
VERTID+
SEX / FKFROM "GENDER_CODE.SEX()"+
METHOD / FKFROM "METHODS_CODE.METHOD()"+
NUM+
RETRAP

MAMSURV

Table identifying all inventories for mammals on each plot

@1 INSTALID / FKFROM "INSTMAST.INSTALID()"+
@2 PLOTID+
@3 RECDATE+
PLOTTYPE+
COLLECTOR+
TRAPS+
TRAPNIGHTS+
BAITS+
TEMPMAX+
TEMPMIN+
CLOUD_COVER+
PRECIP+
MAMNOTE

MAPS

Installation GIS maps used to display LCTA data

INSTALID / FKFROM "INSTMAST.INSTALID()"+
MAPNAME+
DMCELL+
DMCETR+
DMCNLL+
DMCNTR+
MAP

MATED_STATUS_CODE

Bird mated status validation table

@1 MATED_STATUS+

LCTA Entity Definitions

LCTA System

MSTATUS_DEF+
MSTATUS_NOTE

METHODS_CODE

Mammal and herp trapping methods validation table

@1 METHOD+
METHOD_DEF+
METHOD_NOTE

PCSDPLOTSUM

Plant Cover, Surface Disturbance (PCSD) summary data by plot

INSTALID / FKFROM "INSTMAST.INSTALIDQ" FKFROM "PLOTMAST.INSTALIDQ"/+
PLOTID / FKFROM "PLOTMAST.PLOTIDQ"/+
ANALYEAR+
PLOTTYPE+
GDOBS+
GDNONE+
GDROAD+
GDPASS+
GDTRAIL+
GDOTHER+
GCOBS+
GCBARE+
GCLITTER+
GCROCK+
GCPLANT+
GCMICRO+
CCOBS+
CCNONE+
CCANN+
CCPER+
CCANNPER+
ACOBBS+
AC4M

PCSDYEARSUM

Plant Cover, Surface Disturbance (PCSD) summary data by year

INSTALID / FKFROM "INSTMAST.INSTALIDQ"/+
ANALYEAR+
GDNONEMEAN+
GDNONESTDEV+
GDROADMEAN+
GDROADSTDEV+
GDPASSMEAN+
GDPASSSTDEV+
GDTRAILMEAN+
GDTRAILSTDEV+
GDOTHEMEAN+
GDOTHSTDEV+
GCBAREMEAN+
GCBARESTDEV+
GCLITMEAN+
GCLITSTDEV+
GCROCKMEAN+
GCROCKSTDEV+
GCPLANTMEAN+
GCPLANTSTDEV+
GCMICROMEAN+
GCMICROSTDEV+
CCNONEMEAN+
CCNONESTDEV+
CCANNMEAN+
CCANNSTDEV+
CCPERMEAN+
CCPERSTDEV+
CCAPMEAN+

LCTA Entity Definitions

LCTA System

CCAPSTDEV+
ACMEAN+
ACSTDEV+
AC00+
AC20+
AC40+
AC60+
AC80+
AC100

PCTTYEARSUM

Percent of soil loss tolerance summary data by year

INSTALID / FKFROM "INSTMAST.INSTALIDQ"/+
ANALYEAR+
OBS+
T00TO50+
T50TO100+
T100TO150+
T150TO200+
TGT200

PLNTLIST

Installation master vegetation list

@1 VEGID+
FAMILY+
GENUS+
SPEC+
SUBSPEC+
VARIETY+
LIFE+
ORIGIN+
FORM1+
FORM2+
TSTYPE+
SYNON

PLOTMAPS

Map and photo images for each plot

INSTALID / FKFROM "PLOTMAST.INSTALIDQ"/+
PLOTID / FKFROM "PLOTMAST.PLOTIDQ"/+
GENMAP+
LOCMAP+
MISCMAP+
PHOTOS

PLOTMAST

Master plot table [one per LCTA plot]

@1 INSTALID / FKFROM "GROUPING.INSTALIDQ" FKFROM "INSTMAST.INSTALIDQ"/+
@2 PLOTID / FKFROM "GROUPING.PLOTIDQ"/+
DMCE+
DMCN+
ZONE+
PLDATE+
USGS+
SOILSER+
RVAL+
AZIMUTH+
DECLIN

PLOTSURV

Table identifying all inventories on each plot

LCTA Entity Definitions

LCTA System

@1 INSTALID / FKFROM "PLOTMAST.INSTALID"/+
@2 PLOTID / FKFROM "PLOTMAST.PLOTID"/+
@3 RECDATE+
INVTYPE+
PLOTTYPE+
SURVEYOR+
RECORDER+
TRAIN+
VEGTYPE+
ASPECT+
SOILDPTH+
PLOTNOTE

POINT_CODE

Bird data collection line location validation table

@1 MEASURE_PT+
POINT_DEF+
POINT_NOTE

SOILLS

Plot slope data

INSTALID+
PLOTID+
RECDATE+
TRANLOC+
SLOPE+
SLPLEN

SOILMAST

Installation master soil series table

SOILSER+
SOILNAME+
PUBLK+
CALCKMEAN+
CALCKSTDEV+
T+
SOILCAT

SOILSMPL

Soil sample data from USDA National Soils Lab

INSTALID / FKFROM "PLOTMAST.INSTALID"/+
PLOTID / FKFROM "PLOTMAST.PLOTID"/+
YR+
LABK+
TOTCLAY+
TOTSILT+
TOTSAND+
CO3CLAY+
FSILT+
CSILT+
VFSAND+
FSAND+
MSAND+
CSAND+
VCSAND+
WT2TO5MM+
WT5TO20MM+
WT20TO75M+
COURFRAG+
ORGCARB+
ORGMATT+
BARCLAY+
BARWATER+
CARBLT2MM+

LCTA Entity Definitions

LCTA System

PH1TO2+
PH1TO1+
SOILNOTE+
STRUCT_CODE+
PERM_CLASS

TACTCONA

Tactical Concealment summary A

INSTALID / FKFROM "INSTMAST.INSTALIDQ" FKFROM "PLOTMAST.INSTALIDQ"/+
ANALYEAR+
PLOTID / FKFROM "PLOTMAST.PLOTIDQ"/+
VEGID+
LIFEFORM+
VEGCOND+
HTMINTO1+
HT1TO2+
HT2TO3+
HT3TO4+
HTGT4

VERTLIST

Installation master vertebrate list

@1 VERTID+
CLASS+
ORDERS+ ..
SUBORDER+
FAMILY+
SUBFAM+
GENUS+
SPEC+
COMMON+
AUTHORS+
VERTSTAT+
VERTNOTE

Appendix C: Data Element Information

Data element definitions are presented in this appendix. Syntax is as follows.

DATA ELEMENT NAME

element definition

SQL Data Type: designates the type of data

SQL Type Qualifiers: length of text data

Default Nullity: if not null data is required

Derived Data: if T (true) this data was calculated from other data in the database

Valid Entries: gives valid data information

Missing/Invalid: if applicable lists the data entered to denote missing or invalid data

Used By: a list of tables that contain the data element

LCTA Data Element/Entity Reference

LCTA System

ABUNDANCE

Relative abundance, 1-5

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *HERBRJUM*

AC00

Percent of plots with no aerial concealment

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

AC100

Percent of plots with 100% aerial concealment

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

AC20

Percent of plots with 20% aerial concealment

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

LCTA Data Element/Entity Reference
LCTA System

AC40

Percent of plots with 40% aerial concealment

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

AC4M

Number of points with cover above 4 m

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

AC60

Percent of plots with 60% aerial concealment

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

AC80

Percent of plots with 80% aerial concealment

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

LCTA Data Element/Entity Reference

LCTA System

ACCBURN

Number of plots with accidental burn

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

ACMEAN

Mean aerial concealment percent

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

ACOBBS

Number of aerial concealment plots

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

ACSTDEV

Standard deviation of mean aerial concealment percent

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

LCTA Data Element/Entity Reference

LCTA System

AERCOV

Short-term monitoring aerial cover code

SQL Data Type: CHAR

SQL Type Qualifiers: 2

Default Nullity: NOT NULL

Derived Data: F

Valid Entries: (A)nnual,(P)erennial,(AP)annaul&perennial,(N)one

Missing/Invalid: N/A

Used By: AERCOV_CODE

Used By: LINEMON

AERCOV_DEF

Short-term monitoring aerial cover code definition

SQL Data Type: CHAR

SQL Type Qualifiers: 35

Default Nullity: NOT NULL

Derived Data: F

Valid Entries: Annual,Perennial,annaul&perennial,None

Missing/Invalid: N/A

Used By: AERCOV_CODE

AERCOV_NOTE

Aerial cover category note

SQL Data Type: VARCHAR

SQL Type Qualifiers: 100

Default Nullity: NULL

Derived Data: F

Valid Entries: Text

Missing/Invalid: N/A

Used By: AERCOV_CODE

ANALYEAR

Year for recording:analysis

SQL Data Type: INTEGER

SQL Type Qualifiers:

Default Nullity: NOT NULL

Derived Data: F

Valid Entries: 4 digit year

Missing/Invalid: N/A

Used By: COMMCLASSPLOTSUM

Used By: EROSION

LCTA Data Element/Entity Reference

LCTA System

Used By: *LANDUSEYEARSUM*
Used By: *PCSDPLOTSUM*
Used By: *PCSDYEARSUM*
Used By: *PCTTYEARSUM*
Used By: *TACTCONA*

AREA

Surface area of a vegetation clump

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*
Used By: *BELTTRAN*

ASPECT

Plot aspect

SQL Data Type: *CHAR*

SQL Type Qualifiers: *2*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *N,NE,E,SE,S,SW,W,NW,L*

Missing/Invalid: *N/A*
Used By: *PLOTSURV*

ASSOSPP

Associated species

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *150*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Valid associated species*

Missing/Invalid: *N/A*
Used By: *HERBRIUM*

ATDB

Aerial top hits dwarfshrub broadleaf

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

LCTA Data Element/Entity Reference

LCTA System

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

ATDC

Aerial top hits dwarfshrub conifer

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

ATFA

Aerial top hits forb annual

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

ATFP

Aerial top hits forb perennial

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

ATGA

Aerial top hits grass annual

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

LCTA Data Element/Entity Reference
LCTA System

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

ATGP

Aerial top hits grass perennial

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

ATH

Aerial top hits halfshrub

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

ATSB

Aerial top hits shrub conifer

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

ATSC

Aerial top hits shrub conifer

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

LCTA Data Element/Entity Reference

LCTA System

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

ATTB

Aerial top hits tree broadleaf

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

ATTC

Aerial top hits tree conifer

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

AVEMINHT

Average minimum drip height

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *EROSION*

AZIMUTH

Plot azimuth

SQL Data Type: *REAL*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

LCTA Data Element/Entity Reference

LCTA System

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *HERPSURV*

Used By: *PLOTMAST*

BA

Basal Area

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *BASALA*

BAITS

Baits used for small mammal trapping

SQL Data Type: *CHAR*

SQL Type Qualifiers: *25*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Valid baits used for trapping*

Missing/Invalid: *N/A*

Used By: *MAMSURV*

BARCLAY

Ration 15 Bar-Clay

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

BARWATER

15 Bar water on air-dry soil, weight percent

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

LCTA Data Element/Entity Reference

LCTA System

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

BAUTHOR

Author of the species

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *150*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *HERBRUM*

BELTHT

Belt transect belt minimum height

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *BELTSURV*

BELTWIDE

Belt transect belt width

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *BELTSURV*

BIRDNOTE

Plot note for bird survey

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *100*

Default Nullity: *NULL*

Derived Data: *F*

LCTA Data Element/Entity Reference

LCTA System

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *BIRDSURV*

BIV

Number of Bivouac disturbed sites

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

C

Cover value (C) used in USLE

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *EROSION*

C1

C1 subfactor of C (USLE factor)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *EROSION*

C2

C2 subfactor of C (USLE factor)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

LCTA Data Element/Entity Reference

LCTA System

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *EROSION*

CALCKMEAN

Mean Calculated natural erodibility (K) value (USLE factor)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILMAST*

CALCKSTDEV

Standard deviation of calculated natural erodibility (K) value (USLE factor)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *SOILMAST*

CARBLT2MM

Carbonate, < 2mm fraction

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

CASENO

Case Number

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

LCTA Data Element/Entity Reference

LCTA System

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *ENVCONST*

CAT1TO2

Short-term belt height category 1 to 2 meters

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *BELTMON*

CAT2TO3

Short-term belt height category 2 to 3 meters

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *BELTMON*

CAT3TO4

Short-term belt height category 3 to 4 meters

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *BELTMON*

CATGT4

Short-term belt height category greater than 4 meters

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

LCTA Data Element/Entity Reference
LCTA System

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *BELTMON*

CATMINTO1

Short-term belt height category minimum to 1 meter

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *BELTMON*

CCANN

Number of locations with only annual cover

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

CCANNMEAN

Mean number of locations with only annual cover

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

CCANNPER

Number of locations with annual and perennial cover

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

LCTA Data Element/Entity Reference

LCTA System

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

CCANNSTDEV

Standard deviation of number of locations with only annual cover

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *PCSDYEARSUM*

CCAPMEAN

Mean number of locations with annual and perennial cover

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

CCAPSTDEV

Standard deviation of number of locations with annual and perennial cover

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

CCNONE

Number of locations with no cover

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

LCTA Data Element/Entity Reference

LCTA System

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

CCNONEMEAN

Mean number of locations with no cover

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

CCNONESTDEV

Standard deviation of number of locations with no cover

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *PCSDYEARSUM*

CCOBS

Number of total locations measured

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

CCPER

Number of locations with only perennial cover

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

LCTA Data Element/Entity Reference

LCTA System

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

CCPERMEAN

Mean number of locations with only perennial cover

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

CCPERSTDEV

Standard deviation of number of locations with only perennial cover

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *PCSDYEARSUM*

CHEMICAL

Number of plots with evidence of chemical use

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

CLASS

Vertebrate species class

SQL Data Type: *CHAR*

SQL Type Qualifiers: *15*

Default Nullity: *NULL*

Derived Data: *F*

LCTA Data Element/Entity Reference

LCTA System

Valid Entries: *Species database Class*

Missing/Invalid: *N/A*

Used By: *VERTLIST*

CLMPBEGIN

Beginning location of vegetation clump

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number (0.0-100.0)*

Missing/Invalid: *N/A*

Used By: *BELTTRAN*

CLMPEND

End location of vegetation clump

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number (0.0-100.0)*

Missing/Invalid: *N/A*

Used By: *BELTTRAN*

CLOUD_COVER

Percent of cloud cover

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Valid percentage (0-100)*

Missing/Invalid: *N/A*

Used By: *BIRDSURV*

Used By: *HERPSURV*

Used By: *MAMSURV*

CO3CLAY

CO3 Clay

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

LCTA Data Element/Entity Reference

LCTA System

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

COLLDATE

Herbarium collection date

SQL Data Type: *DATE*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Valid date*

Missing/Invalid: *N/A*

Used By: *HERBRUM*

COLLECTOR

Collector(s)

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *70*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *BIRDSURV*

Used By: *HERBRUM*

Used By: *HERPSURV*

Used By: *MAMSURV*

COLLNO

Collection number

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *HERBRUM*

COMMENTS

Comments on plant characteristics, site, habitat, etc.

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *175*

LCTA Data Element/Entity Reference

LCTA System

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *HERBRIUM*

COMMON

Species common name

SQL Data Type: *CHAR*

SQL Type Qualifiers: *40*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Species database animal common name*

Missing/Invalid: *N/A*

Used By: *HERBRIUM*

Used By: *VERTLIST*

COUNTY

County where collected

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *30*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Valid State county*

Missing/Invalid: *N/A*

Used By: *HERBRIUM*

COURFRAG

Course fragments (> 2mm), weight % of whole soil

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

CROP

Number of plots with crop use

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

LCTA Data Element/Entity Reference LCTA System

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

CSAND

Soil analysis of course sand

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

CSILT

Soil analysis of course silt

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

DEBDAM

Number of plots with debris dams

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

DECLIN

Plot declination

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

LCTA Data Element/Entity Reference

LCTA System

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PLOTMAST*

DEMO

Number of plots with demolition

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

DETERMIN

Determiner of final identification

SQL Data Type: *CHAR*

SQL Type Qualifiers: *20*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *HERBRIUM*

DISTURB

Ground disturbance code

SQL Data Type: *CHAR*

SQL Type Qualifiers: *2*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *(N)one, (P)ass, (T)rail, (R)oad, (O)ther*

Missing/Invalid: *N/A*

Used By: *DISTURB_CODE*

Used By: *GNDCOVER*

Used By: *LINEMON*

DISTURB_DEF

Ground disturbance code definition

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *CHAR*

SQL Type Qualifiers: *35*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *None,Pass,Trail,Road,Other*

Missing/Invalid: *N/A*

Used By: *DISTURB_CODE*

DISTURB_NOTE

Disturbance category note

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *100*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *DISTURB_CODE*

DMCE

Universal Trasverse Mercator coordinate, easting

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Valid UTM - Easting*

Missing/Invalid: *N/A*

Used By: *CLIMATESTATIONS*

Used By: *HERBRIUM*

Used By: *PLOTMAST*

DMCELL

Universal Trasverse Mercator easting of lower left corner

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Valid DMC (UTM)*

Missing/Invalid: *N/A*

Used By: *MAPS*

DMCETR

Universal Trasverse Mercator easting of top right corner

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Valid DMCE (UTM)*

Missing/Invalid: *N/A*

Used By: *MAPS*

DMCN

Universal Trasverse Mercator coordinate, northing

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Valid UTM - Northing*

Missing/Invalid: *N/A*

Used By: *CLIMATESTATIONS*

Used By: *HERBRIUM*

Used By: *PLOTMAST*

DMCNLL

Universal Trasverse Mercator northing of lower left corner

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Valid DMCN (UTM)*

Missing/Invalid: *N/A*

Used By: *MAPS*

DMCNTR

Universal Trasverse Mercator northing or top right corner

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Valid DMCN (UTM)*

Missing/Invalid: *N/A*

Used By: *MAPS*

DRIFTING

Number of plots with observed drifting wind erosion

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

EFFCOVER

Effective cover in USLE calculation

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *EROSION*

ELEV

Elevation

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *HERBRIUM*

EXCA

Number of plots with excavation

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

EXCPTNSP

Exception species to belt width

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *CHAR*

SQL Type Qualifiers: *8*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Species database plant code*

Missing/Invalid: *N/A*

Used By: *BELTSURV*

FAMILY

Species family

SQL Data Type: *CHAR*

SQL Type Qualifiers: *20*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Species database Family*

Missing/Invalid: *N/A*

Used By: *HERBRIUM*

Used By: *PLNTLIST*

Used By: *VERTLIST*

FEDSTAT

Federal status code

SQL Data Type: *CHAR*

SQL Type Qualifiers: *6*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Valid Federal T&E code*

Missing/Invalid: *N/A*

Used By: *FED_STATUS*

Used By: *HERBRIUM*

FEDSTAT_DEF

Federal status code definition

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *50*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Valid Federal T&E definition*

Missing/Invalid: *N/A*

Used By: *FED_STATUS*

FEDSTAT_NOTE

LCTA Data Element/Entity Reference

LCTA System

Federal status code notes

SQL Data Type: VARCHAR

SQL Type Qualifiers: 100

Default Nullity: NULL

Derived Data: F

Valid Entries: Text

Missing/Invalid: N/A

Used By: FED_STATUS

FLYOVERS

Bird species flyover data

SQL Data Type: char

SQL Type Qualifiers: 3

Default Nullity: NULL

Derived Data: F

Valid Entries: (Y)es, (N)o

Missing/Invalid: N/A

Used By: BIRDS

FOOT

Number of plots with foot traffic

SQL Data Type: INTEGER

SQL Type Qualifiers:

Default Nullity: NULL

Derived Data: T

Valid Entries: Integer

Missing/Invalid: N/A

Used By: LANDUSEYEARSUM

FOREST

Number of plots with forestry activity

SQL Data Type: INTEGER

SQL Type Qualifiers:

Default Nullity: NULL

Derived Data: T

Valid Entries: Integer

Missing/Invalid: N/A

Used By: LANDUSEYEARSUM

FORM1

LCTA Data Element/Entity Reference

LCTA System

Plant life form 1

SQL Data Type: CHAR

SQL Type Qualifiers: 1

Default Nullity: NULL

Derived Data: F

Valid Entries: (G)rass,(F)orb,(T)ree,(H)half,(S)shrub,(T)ree,(W)woody

Missing/Invalid: N/A

Used By: PLNTLIST

FORM2

Plant life form 2

SQL Data Type: CHAR

SQL Type Qualifiers: 1

Default Nullity: NULL

Derived Data: F

Valid Entries: (V)ine,(S)hrub

Missing/Invalid: N/A

Used By: PLNTLIST

FSAND

Soil Analysis of find sand

SQL Data Type: FLOAT

SQL Type Qualifiers:

Default Nullity: NULL

Derived Data: F

Valid Entries: Real number

Missing/Invalid: N/A

Used By: SOILSMPL

FSILT

Soil Analysis of find silt

SQL Data Type: FLOAT

SQL Type Qualifiers:

Default Nullity: NULL

Derived Data: F

Valid Entries: Real number

Missing/Invalid: N/A

Used By: SOILSMPL

GCBARE

LCTA Data Element/Entity Reference

LCTA System

Number of bare ground points

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

GCBAREMEAN

Mean number of bare ground points

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

GCBARESTDEV

Standard deviation of number of bare ground points

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *PCSDYEARSUM*

GCLITMEAN

Mean number of points with litter

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

GCLITSTDEV

LCTA Data Element/Entity Reference

LCTA System

Standard Deviation of points with litter

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *PCSDYEARSUM*

GCLITTER

Standard deviation of number of points with litter

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

GCMICRO

Number of points with microphytes

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

GCMICROMEAN

Mean number of points with microphytes

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

GCMICROSTDEV

LCTA Data Element/Entity Reference

LCTA System

Standard deviation of number of points with microphytes

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *PCSDYEARSUM*

GCOBS

Total number of ground cover points

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

GCPLANT

Number of points with plants

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

GCPLANTMEAN

Mean number of points with plants

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

GCPLANTSTDEV

LCTA Data Element/Entity Reference

LCTA System

Standard deviation of number of points with plants

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *PCSDYEARSUM*

GCROCK

Number of points with rocks

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

GCROCKMEAN

Mean number of points with rocks

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

GCROCKSTDEV

Standard deviation of number of points with rocks

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *PCSDYEARSUM*

GDNONE

LCTA Data Element/Entity Reference

LCTA System

Number of points with no ground cover

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

GDNONEMEAN

Mean number of points with no ground cover

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

GDNONESTDEV

Standard deviation of number of points with no ground cover

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *PCSDYEARSUM*

GDOBS

Number of ground disturbance points

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

GDOTHER

LCTA Data Element/Entity Reference

LCTA System

Number of points with other disturbance

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

GDOTHMEAN

Mean number of points with other disturbance

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

GDOTHSTDEV

Standard deviation of number of points with other disturbance

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *PCSDYEARSUM*

GDPASS

Number of points with vehicle pass disturbance

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

GDPASSMEAN

LCTA Data Element/Entity Reference

LCTA System

Mean number of points with vehicle pass disturbance

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

GDPASSSTDEV

Standard deviation of number of points with pass disturbance

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *PCSDYEARSUM*

GDROAD

Number of points with road disturbance

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

GDROADMEAN

Mean number of points with road disturbance

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

GDROADSTDEV

LCTA Data Element/Entity Reference

LCTA System

Standard deviation of number of points with road disturbance

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *PCSDYEARSUM*

GDTRAIL

Number of points with foot trail disturbance

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCSDPLOTSUM*

GDTRAILMEAN

Mean number of points with foot trail disturbance

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *PCSDYEARSUM*

GDTRAILSTDEV

Standard deviation of number of points with foot trail disturbance

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *PCSDYEARSUM*

GENMAP

LCTA Data Element/Entity Reference

LCTA System

General plot location map

SQL Data Type: *LONG_VARCHAR*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Bitmap or TIFF format*

Missing/Invalid: *N/A*

Used By: *PLOTMAPS*

GENUS

Species genus

SQL Data Type: *CHAR*

SQL Type Qualifiers: *20*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Species database Genus*

Missing/Invalid: *N/A*

Used By: *HERBRUM*

Used By: *PLNTLIST*

Used By: *VERTLIST*

GNDCOV

Monitoring ground cover code

SQL Data Type: *CHAR*

SQL Type Qualifiers: *2*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *(P)lant, (L)itter, (B)are, (R)ock*

Missing/Invalid: *N/A*

Used By: *GNDCOV_CODE*

Used By: *LINEMON*

GNDCOV_DEF

Monitoring ground cover code definition

SQL Data Type: *CHAR*

SQL Type Qualifiers: *35*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Plant, Litter, Bare, Rock*

Missing/Invalid: *N/A*

Used By: *GNDCOV_CODE*

LCTA Data Element/Entity Reference
LCTA System

GNDCOV_NOTE

Ground cover category note

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *100*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *GNDCOV_CODE*

GRAZING

Number of plots with grazing

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

GULLY

Number of plots with observed gully erosion

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

HABDIVIS

Habitat divisor in USLE calculations

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *EROSION*

LCTA Data Element/Entity Reference

LCTA System

HABIT

Habit code, from SCS PLANTS database

SQL Data Type: CHAR

SQL Type Qualifiers: 6

Default Nullity: NULL

Derived Data: F

Valid Entries: Text

Missing/Invalid: N/A

Used By: HERBRIMUM

HAY

Number of plots with hay use

SQL Data Type: INTEGER

SQL Type Qualifiers:

Default Nullity: NULL

Derived Data: T

Valid Entries: Integer

Missing/Invalid: N/A

Used By: LANDUSEYEARSUM

HERPNOTE

Plot note for herp survey

SQL Data Type: VARCHAR

SQL Type Qualifiers: 100

Default Nullity: NULL

Derived Data: F

Valid Entries: Text

Missing/Invalid: N/A

Used By: HERPSURV

HT1TO2

Number of hits in height category 1 to 2 m

SQL Data Type: INTEGER

SQL Type Qualifiers:

Default Nullity: NULL

Derived Data: T

Valid Entries: Integer

Missing/Invalid: N/A

Used By: TACTCONA

LCTA Data Element/Entity Reference
LCTA System

HT2TO3

Number of hits in height category 2 to 3 m

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *TACTCONA*

HT3TO4

Number of hits in height category 3 to 4 m

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *TACTCONA*

HTGT4

Number of hits in height category greater than 4 m

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *TACTCONA*

HTMINTO1

Number of hits in height category minimum to 1 m

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *TACTCONA*

LCTA Data Element/Entity Reference

LCTA System

IMPACT

Impact on training

SQL Data Type: *LONG_VARCHAR*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text, number*

Missing/Invalid: *N/A*

Used By: *ENVCONST*

INLOC

Installation location

SQL Data Type: *CHAR*

SQL Type Qualifiers: *40*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *State and country*

Missing/Invalid: *N/A*

Used By: *INSTMAST*

INNAME

Installation name

SQL Data Type: *CHAR*

SQL Type Qualifiers: *30*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Correct installation name*

Missing/Invalid: *N/A*

Used By: *INSTMAST*

INSIZE

Installation size

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *installation size in acres*

Missing/Invalid: *N/A*

Used By: *INSTMAST*

LCTA Data Element/Entity Reference
LCTA System

INSTALID

Installation code

SQL Data Type: *CHAR*

SQL Type Qualifiers: *3*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Three letter installation code*

Missing/Invalid: *N/A*

Used By: *AERCOVER*

Used By: *BASALA*

Used By: *BELTMON*

Used By: *BELTSURV*

Used By: *BELTRAN*

Used By: *BIRDS*

Used By: *BIRDSURV*

Used By: *CLIMATEDATA*

Used By: *CLIMATESTATIONS*

Used By: *COMMCLASSPLOTSUM*

Used By: *ENVCONST*

Used By: *EROSEVID*

Used By: *EROSION*

Used By: *F COUNT*

Used By: *GNDCOVER*

Used By: *GROUPING*

Used By: *HERBRJUM*

Used By: *HERPS*

Used By: *HERPSURV*

Used By: *HISTORY*

Used By: *INSTMAST*

Used By: *LANDUSE*

Used By: *LANDUSEYEARSUM*

Used By: *LINEMON*

Used By: *MAINTACT*

Used By: *MAMMALS*

Used By: *MAMSURV*

Used By: *MAPS*

Used By: *PCSDPLOTSUM*

Used By: *PCSDYEARSUM*

Used By: *PCTTYEARSUM*

Used By: *PLOTMAPS*

Used By: *PLOTMAST*

Used By: *PLOTSURV*

Used By: *SOILS*

Used By: *SOILSMPL*

Used By: *TACTCONA*

INSTNOTE

Installation note

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *254*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text or numbers*

Missing/Invalid: *N/A*

LCTA Data Element/Entity Reference

LCTA System

Used By: *HISTORY*

INVTYPE

Inventory type

SQL Data Type: *CHAR*

SQL Type Qualifiers: *2*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *(I)nventory, (M)onitoring, (L)ong term monitoring*

Missing/Invalid: *N/A*

Used By: *PLOTSURV*

KCAL

Calculated erodibility (K) value (USLE factor)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *SCS K value (calculated)*

Missing/Invalid: *-1*

Used By: *EROSION*

KCALEROSINDEX

Erosion index using calculated erodibility value (K)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *EROSION*

KPUB

SCS Published erodibility (K) value (USLE factor)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *SCS K value*

Missing/Invalid: *N/A*

LCTA Data Element/Entity Reference

LCTA System

Used By: *EROSION*

KPUBEROSINDEX

Erosion index using published erodibility (K) (USLE factor)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *EROSION*

LABK

Erodibility (K) value calculated with sample data (USLE factor)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *SCS K value*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

LANDUSE

Plot land use code

SQL Data Type: *CHAR*

SQL Type Qualifiers: *16*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Valid military or non-military use*

Missing/Invalid: *N/A*

Used By: *LANDUSE*

Used By: *LANDUSE_CODE*

LANDUSE_DEF

Landuse code definition

SQL Data Type: *CHAR*

SQL Type Qualifiers: *35*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Valid landuse code definition*

LCTA Data Element/Entity Reference

LCTA System

Missing/Invalid: *N/A*
Used By: *LANDUSE_CODE*

LANDUSE_NOTE

Note on landuse code

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *100*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Alphanumeric*

Missing/Invalid: *N/A*
Used By: *LANDUSE_CODE*

LEALLOBS

Number of plots with land use showing erosion evidence

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*
Used By: *LANDUSEYEARSUM*

LEALLVIS

Number of plots with land use other than NONE showing erosion evidence

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*
Used By: *LANDUSEYEARSUM*

LEWAOBS

Number of plots with land use showing water erosion evidence

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

LCTA Data Element/Entity Reference
LCTA System

Missing/Invalid: *N/A*
Used By: *LANDUSEYEARSUM*

LEWAVIS

Number of plots with land use other than NONE showing water erosion evidence

SQL Data Type: *INTEGER* **SQL Type Qualifiers:**

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*
Used By: *LANDUSEYEARSUM*

LEWIOBS

Number of plots with land use showing wind erosion evidence

SQL Data Type: *INTEGER* **SQL Type Qualifiers:**

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*
Used By: *LANDUSEYEARSUM*

LEWIVIS

Number of plots with land use other than NONE showing wind erosion evidence

SQL Data Type: *INTEGER* **SQL Type Qualifiers:**

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*
Used By: *LANDUSEYEARSUM*

LIFE

Plant life pattern

SQL Data Type: *CHAR* **SQL Type Qualifiers:** *1*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *(A)nnual,(P)erennial*

LCTA Data Element/Entity Reference

LCTA System

Missing/Invalid: *N/A*
Used By: *PLNTLIST*

LIFEFORM

Plant life form category

SQL Data Type: *CHAR*

SQL Type Qualifiers: *1*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *(A)nnual,(P)erennial*

Missing/Invalid: *N/A*
Used By: *TACTCONA*

LOC

Line transect location of herp trap

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *0 to 100*

Missing/Invalid: *N/A*
Used By: *HERPSURV*

LOCALITY

Description of geographic area where plant was collected

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *224*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*
Used By: *HERBRUM*

LOCMAP

Specific location map

SQL Data Type: *LONG_VARCHAR*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Bitmap or TIFF format*

LCTA Data Element/Entity Reference

LCTA System

Missing/Invalid: *N/A*
Used By: *PLOTMAPS*

LS0

Toppographic factor (LS) at transect location 0 m (USLE factor)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Valid LS value*

Missing/Invalid: *N/A*
Used By: *EROSION*

LS1

Toppographic factor (LS) at transect location 50 m (USLE factor)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Valid LS value*

Missing/Invalid: *N/A*
Used By: *EROSION*

LS2

Toppographic factor (LS) at transect location 100 m (USLE factor)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Valid LS value*

Missing/Invalid: *N/A*
Used By: *EROSION*

LSM

Mean topographic factor (LS) of 3 transects (USLE factor)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Valid LS value*

LCTA Data Element/Entity Reference

LCTA System

Missing/Invalid: *N/A*
Used By: *EROSION*

MAINNOTE

Plot maintenance note

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *254*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text, numbers*

Missing/Invalid: *N/A*
Used By: *MAINTACT*

MAINTAIN

Plot maintenance code

SQL Data Type: *CHAR*

SQL Type Qualifiers: *16*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Valid maintenance activity*

Missing/Invalid: *N/A*
Used By: *MAINTACT*
Used By: *MAINT_CODE*

MAINTAIN_DEF

Maintenance code definition

SQL Data Type: *CHAR*

SQL Type Qualifiers: *35*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Valid maintenace code definition*

Missing/Invalid: *N/A*
Used By: *MAINT_CODE*

MAINTAIN_NOTE

Maintenance activity code note

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *100*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Alphanumeric*

LCTA Data Element/Entity Reference

LCTA System

Missing/Invalid: *N/A*
Used By: *MAINT_CODE*

MAMNOTE

Plot note for mammal survey

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *100*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*
Used By: *MAMSURV*

MANONE

Number of plots with no maintenance activity

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*
Used By: *LANDUSEYEARSUM*

MAOBS

Number of plots with maintenance recorded

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*
Used By: *LANDUSEYEARSUM*

MAOTHER

Number of plots with "other" maintenance

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

LCTA Data Element/Entity Reference

LCTA System

Missing/Invalid: *N/A*
Used By: *LANDUSEYEARSUM*

MAP

A map image

SQL Data Type: *LONG_VARCHAR* **SQL Type Qualifiers:**

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Valid image type*

Missing/Invalid: *N/A*
Used By: *MAPS*

MAPNAME

User supplied map name

SQL Data Type: *VARCHAR* **SQL Type Qualifiers:** *32*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*
Used By: *MAPS*

MATED_STATUS

Bird species mated status code

SQL Data Type: *CHAR* **SQL Type Qualifiers:** *2*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *(*)Singing male,(PR)Adult male/female pair,(M)Nonsinging male,(F)Female onl*

Missing/Invalid: *N/A*
Used By: *BIRDS*
Used By: *MATED_STATUS_CODE*

MCCCODE

Most common community (MCC) classification code

SQL Data Type: *CHAR* **SQL Type Qualifiers:** *8*

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Valid Most Common Classification code*

LCTA Data Element/Entity Reference

LCTA System

Missing/Invalid: *N/A*
Used By: *COMMCLASSPLOTSUM*

MCCTYPE

Most common community (MCC) classification type

SQL Data Type: *CHAR* **SQL Type Qualifiers:** *4*

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Valid Most Common Classification type*

Missing/Invalid: *N/A*
Used By: *COMMCLASSPLOTSUM*

MEALLOBS

Number of plots with maintenance activities showing erosion evidence

SQL Data Type: *INTEGER* **SQL Type Qualifiers:**

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*
Used By: *LANDUSEYEARSUM*

MEALLVIS

Number of plots with maintenance activities other than NONE showing erosion evidence

SQL Data Type: *INTEGER* **SQL Type Qualifiers:**

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*
Used By: *LANDUSEYEARSUM*

MEASURE_PT

Line location of bird survey data location

SQL Data Type: *CHAR* **SQL Type Qualifiers:** *2*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *(LO)Line-out, (LI)Line-in, (EP)End-point, (C)Combined, (U)Unknown, (NR)Not reco*

LCTA Data Element/Entity Reference

LCTA System

Missing/Invalid: *N/A*
Used By: *BIRDS*
Used By: *POINT_CODE*

METHOD

Vertebrate collection method

SQL Data Type: *CHAR* SQL Type Qualifiers: *3*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *(O)bserved,(S)ighting,(T)rapped*

Missing/Invalid: *N/A*
Used By: *HERPS*
Used By: *MAMMALS*
Used By: *METHODS_CODE*

METHOD_DEF

Vertebrate collection method code definition

SQL Data Type: *CHAR* SQL Type Qualifiers: *35*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Observed,Sighting,Trapped*

Missing/Invalid: *N/A*
Used By: *METHODS_CODE*

METHOD_NOTE

Vertebrate collection notes

SQL Data Type: *VARCHAR* SQL Type Qualifiers: *100*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*
Used By: *METHODS_CODE*

MEWAOBS

Number of plots with maintenance activities showing water erosion evidence

SQL Data Type: *INTEGER* SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

LCTA Data Element/Entity Reference

LCTA System

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

MEWAVIS

Number of plots with maintenance activities other than NONE showing water erosion evidence

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

MEWIOBS

Number of plots with maintenance activities showing wind erosion evidence

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

MEWIVIS

Number of plots with maintenance activities other than NONE showing wind erosion evidence

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

MISCMAP

Additional maps

SQL Data Type: *LONG_VARCHAR*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

LCTA Data Element/Entity Reference

LCTA System

Valid Entries: *Bitmap or TIFF format*

Missing/Invalid: *N/A*

Used By: *PLOTMAPS*

MITIGATION

Mitigation strategies

SQL Data Type: *LONG_VARCHAR*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text, number*

Missing/Invalid: *N/A*

Used By: *ENVCONST*

MNONE

Number of plots with no military activity

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

MOBS

Number of plots with military activity recorded

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

MOTHER

Number of plots with "other" military activity

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

LCTA Data Element/Entity Reference

LCTA System

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

MOW

Number of plots with mowing

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

MSAND

Soil analysis of medium sand

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

MSTATUS_DEF

Bird species mated status code

SQL Data Type: *CHAR*

SQL Type Qualifiers: *35*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: **,PR,M,F,U,Y,FL,C,NR*

Missing/Invalid: *N/A*

Used By: *MATED_STATUS_CODE*

MSTATUS_NOTE

Mated status code note

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *100*

Default Nullity: *NULL*

Derived Data: *F*

LCTA Data Element/Entity Reference

LCTA System

Valid Entries: *Alphanumeric*

Missing/Invalid: *N/A*

Used By: *MATED_STATUS_CODE*

NMNONE

Number of plots with no nonmilitary activity

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

NMOBS

Number of plots with nonmilitary activity recorded

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

NMOTHER

Number of plots with nonmilitary "other" activity

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

NUM

Number of bird, mammal, or herp species sited/trapped

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

LCTA Data Element/Entity Reference

LCTA System

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *BIRDS*

Used By: *HERPS*

Used By: *MAMMALS*

OBS

Total number of observation per group

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCTYEARSUM*

OPT_REAL

Optional belt variable, usually DBH

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real numbers*

Missing/Invalid: *N/A*

Used By: *BELTRAN*

OPT_TEXT

Optional line variable

SQL Data Type: *CHAR*

SQL Type Qualifiers: *8*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text, numbers*

Missing/Invalid: *N/A*

Used By: *GNDCOVER*

Used By: *LINEMON*

OPT_TEXT1

Optional variable 1

SQL Data Type: *CHAR*

SQL Type Qualifiers: *8*

Default Nullity: *NULL*

LCTA Data Element/Entity Reference

LCTA System

Derived Data: *F*

Valid Entries: *Text, numbers*

Missing/Invalid: *N/A*

Used By: *F_COUNT*

OPT_TEXT2

Optional variable 2

SQL Data Type: *CHAR*

SQL Type Qualifiers: *8*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text, numbers*

Missing/Invalid: *N/A*

Used By: *F_COUNT*

OPT_TEXT3

Optional variable 3

SQL Data Type: *CHAR*

SQL Type Qualifiers: *8*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text, numbers*

Missing/Invalid: *N/A*

Used By: *F_COUNT*

OPT_TEXT4

Optional variable 4

SQL Data Type: *CHAR*

SQL Type Qualifiers: *8*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text, numbers*

Missing/Invalid: *N/A*

Used By: *F_COUNT*

OPT_TEXT5

Optional variable 5

SQL Data Type: *CHAR*

SQL Type Qualifiers: *8*

Default Nullity: *NULL*

LCTA Data Element/Entity Reference
LCTA System

Derived Data: *F*

Valid Entries: *Text, numbers*

Missing/Invalid: *N/A*

Used By: *F_COUNT*

ORDERS

Order of the Species

SQL Data Type: *CHAR*

SQL Type Qualifiers: *20*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Species database Order*

Missing/Invalid: *N/A*

Used By: *VERTLIST*

ORGCARB

Walkley-Black organic carbon

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

ORMATT

Soil analysis of organic matter

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

PADB

Presence:Absence (PA) dwarfshrub broadleaf

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

LCTA Data Element/Entity Reference
LCTA System

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

PADC

Presence: Absence (PA) dwarfshrub conifer

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

PAERCOV

Percent aerial cover

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *EROSION*

PAFA

Presence: Absence (PA) forb annual

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

PAFP

Presence: Absence (PA) forb perennial

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

LCTA Data Element/Entity Reference
LCTA System

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

PAGA

Presence: Absence (PA) grass annual

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

PAGP

Presence: Absence (PA) grass perennial

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

PAH

Presence: Absence (PA) halfshrub

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

PANEVAP

Pan evaporation

SQL Data Type: *float*

SQL Type Qualifiers:

Default Nullity: *NULL*

LCTA Data Element/Entity Reference

LCTA System

Derived Data: *F*

Valid Entries: *Float*

Missing/Invalid: *N/A*

Used By: *CLIMATEDATA*

PASB

Presence: Absence (PA) shrub broadleaf

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

PASC

Presence: Absence (PA) shrub conifer

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

PATB

Presence: Absence (PA) tree broadleaf

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

PATC

Presence: Absence (PA) tree conifer

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

LCTA Data Element/Entity Reference

LCTA System

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

PCCCODE

Plant community classification code

SQL Data Type: *CHAR*

SQL Type Qualifiers: *8*

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Valid classification code*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

PCCTYPE

Plant community classification type

SQL Data Type: *CHAR*

SQL Type Qualifiers: *4*

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *(A)nnual,(P)erennial,(B)roadleaf,(C)oniferous,(M)ixed*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

PCTTKCAL

USLE percent of T using Kcal

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *EROSION*

PCTTKPUB

USLE percent of T using Kpub

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

LCTA Data Element/Entity Reference LCTA System

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *EROSION*

PERIOD

Period of measurements (AM or PM)

SQL Data Type: *CHAR*

SQL Type Qualifiers: *4*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *AM, PM*

Missing/Invalid: *N/A*

Used By: *BIRDS*

PERM_CLASS

Soil permeability class

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

PGNDCOV

Percent ground cover

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *EROSION*

PH1TO1

pH, 1:1 Soil-water suspension

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

LCTA Data Element/Entity Reference

LCTA System

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

PH1TO2

pH, 1:2 Soil-CACL2 Suspension

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

PHOTOS

Plot photos

SQL Data Type: *LONG_VARCHAR*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Bitmap or TIFF format*

Missing/Invalid: *N/A*

Used By: *PLOTMAPS*

PLANT

Number of plots with planting

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

PLANTHT

Belt transect plant height

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

LCTA Data Element/Entity Reference

LCTA System

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *BELTTRAN*

PLDATE

Initial plot allocation date

SQL Data Type: *DATE*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Valid date*

Missing/Invalid: *N/A*

Used By: *PLOTMAST*

PLOTID

Plot identification number

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *AERCOVER*

Used By: *BASALA*

Used By: *BELTMON*

Used By: *BELTSURV*

Used By: *BELTTRAN*

Used By: *BIRDS*

Used By: *BIRDSURV*

Used By: *COMMCLASSPLOTSUM*

Used By: *EROSEVID*

Used By: *EROSION*

Used By: *F_COUNT*

Used By: *GNDCOVER*

Used By: *GROUPING*

Used By: *HERPS*

Used By: *HERPSURV*

Used By: *LANDUSE*

Used By: *LINEMON*

Used By: *MAINTACT*

Used By: *MAMMALS*

Used By: *MAMSURV*

Used By: *PCSDPLOTSUM*

Used By: *PLOTMAPS*

Used By: *PLOTMAST*

Used By: *PLOTSURV*

Used By: *SOILLS*

Used By: *SOILSMPL*

Used By: *TACTCONA*

LCTA Data Element/Entity Reference

LCTA System

PLOTNOTE

Plot comments

SQL Data Type: *LONG_VARCHAR*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text, number*

Missing/Invalid: *N/A*

Used By: *PLOTSURV*

PLOTTYPE

Plots core:special use flag

SQL Data Type: *CHAR*

SQL Type Qualifiers: *8*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *(C)ore, (S)pecial use*

Missing/Invalid: *N/A*

Used By: *BIRDSURV*

Used By: *HERPSURV*

Used By: *MAMSURV*

Used By: *PCSDPLOTSUM*

Used By: *PLOTSURV*

POINT_DEF

Line location code of bird survey data definition

SQL Data Type: *CHAR*

SQL Type Qualifiers: *35*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Line-out, Line-in, End-point, Combined, Unknown, Not recorded*

Missing/Invalid: *N/A*

Used By: *POINT_CODE*

POINT_NOTE

Note on measure_pt code

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *100*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

LCTA Data Element/Entity Reference

LCTA System

Missing/Invalid: *N/A*
Used By: *POINT_CODE*

PREBURN

Number of plots with prescribed burn

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*
Used By: *LANDUSEYEARSUM*

PRECIP

Precipitation in inches

SQL Data Type: *float*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Float*

Missing/Invalid: *N/A*
Used By: *MAMSURV*

PUBLK

SCS published erodibility value (K) for soil series (USLE factor)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *SCS K value*

Missing/Invalid: *N/A*
Used By: *SOILMAST*

RAIN

Weekly rain fall

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Real number*

LCTA Data Element/Entity Reference

LCTA System

Missing/Invalid: *N/A*
Used By: *CLIMATEDATA*

REALISM

Loss of training realism

SQL Data Type: *LONG_VARCHAR*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text, number*

Missing/Invalid: *N/A*
Used By: *ENVCONST*

RECDATE

Plot survey date

SQL Data Type: *DATE*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Valid date*

Missing/Invalid: *N/A*
Used By: *AERCOVER*
Used By: *BASALA*
Used By: *BELTMON*
Used By: *BELTSURV*
Used By: *BELTRAN*
Used By: *BIRDS*
Used By: *BIRDSURV*
Used By: *CLIMATEDATA*
Used By: *ENVCONST*
Used By: *EROSEVID*
Used By: *F_COUNT*
Used By: *GNDCOVER*
Used By: *HERPS*
Used By: *HERPSURV*
Used By: *HISTORY*
Used By: *LANDUSE*
Used By: *LINEMON*
Used By: *MAINTACT*
Used By: *MAMMALS*
Used By: *MAMSURV*
Used By: *PLOTSURV*
Used By: *SOILLS*

RECORDER

Plot recorder

SQL Data Type: *CHAR*

SQL Type Qualifiers: *35*

Default Nullity: *NULL*

LCTA Data Element/Entity Reference

LCTA System

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *HISTORY*

Used By: *PLOTSURV*

RESEARCH

Research needs

SQL Data Type: *LONG_VARCHAR*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text, number*

Missing/Invalid: *N/A*

Used By: *ENVCONST*

RESTRAINT

Environmental constraint/restraint

SQL Data Type: *LONG_VARCHAR*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text, number*

Missing/Invalid: *N/A*

Used By: *ENVCONST*

RETRAP

Number of retrapped mammals or herps

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *HERPS*

Used By: *MAMMALS*

RVAL

Rainfall erosivity (R) value for recorder

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

LCTA Data Element/Entity Reference

LCTA System

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *SCSR value*

Missing/Invalid: *N/A*

Used By: *EROSION*

Used By: *PLOTMAST*

SCOURING

Number of plots with observed scouring erosion

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

SEED

Number of plots with seeding

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

SEX

Wildlife gender code

SQL Data Type: *CHAR*

SQL Type Qualifiers: *1*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *(M)ale, (F)emale, (U)nkknown, (C)ombined, (NR)not recorded*

Missing/Invalid: *N/A*

Used By: *GENDER_CODE*

Used By: *HERPS*

Used By: *MAMMALS*

SEX_DEF

Gender code definition

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *CHAR*

SQL Type Qualifiers: *35*

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Male, Female, Unknown, Combined, Not recorded*

Missing/Invalid: *N/A*

Used By: *GENDER_CODE*

SEX_NOTE

Note on gender code

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *100*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *GENDER_CODE*

SHEET

Number of plots with observed sheet erosion

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

SIDE

Plant belt side location

SQL Data Type: *CHAR*

SQL Type Qualifiers: *1*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *(L)eft, (R)ight*

Missing/Invalid: *N/A*

Used By: *BELTSURV*

Used By: *BELTRAN*

SIDEDIST

Plant belt side distance

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *BELTRAN*

SLOPE

Plot slope

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILLS*

SLPLEN

Plot slope length

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *SOILLS*

SOILCAT

Soil category number for running GRASS output

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text, Integer*

Missing/Invalid: *N/A*

Used By: *SOILMAST*

SOILDPH

Average plot soil depth

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *CHAR*

SQL Type Qualifiers: *3*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *0,0-1, 1-2, 2-3, 3-4, >4*

Missing/Invalid: *N/A*

Used By: *PLOTSURV*

SOILNAME

Plot soil series name

SQL Data Type: *CHAR*

SQL Type Qualifiers: *40*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *SCS soil name*

Missing/Invalid: *N/A*

Used By: *SOILMAST*

SOILNOTE

Misc. soil notes

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *254*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text, number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

SOILSER

Plot soil series code

SQL Data Type: *CHAR*

SQL Type Qualifiers: *8*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *SCS soil series*

Missing/Invalid: *N/A*

Used By: *PLOTMAST*

Used By: *SOILMAST*

SOILTOPO

Geology, soil, topography

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: VARCHAR

SQL Type Qualifiers: 150

Default Nullity: NULL

Derived Data: F

Valid Entries: Text

Missing/Invalid: N/A

Used By: HERBRIUM

SPEC

Species name

SQL Data Type: CHAR

SQL Type Qualifiers: 25

Default Nullity: NULL

Derived Data: F

Valid Entries: Speices database species

Missing/Invalid: N/A

Used By: PLNTLIST

Used By: VERTLIST

SPECIES

Herbrium table species information (extended)

SQL Data Type: char

SQL Type Qualifiers: 35

Default Nullity: NULL

Derived Data: F

Valid Entries: Valid species information

Missing/Invalid: N/A

Used By: HERBRIUM

STATESTAT

Current status as State endangered (SE), other State status

SQL Data Type: CHAR

SQL Type Qualifiers: 6

Default Nullity: NOT NULL

Derived Data: F

Valid Entries: Valid State T&E code

Missing/Invalid: N/A

Used By: HERBRIUM

Used By: STATE_STATUS

STATESTAT_DEF

State status code definition

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: VARCHAR

SQL Type Qualifiers: 50

Default Nullity: NOT NULL

Derived Data: F

Valid Entries: *Vale State T&E code definition*

Missing/Invalid: N/A

Used By: STATE_STATUS

STATESTAT_NOTE

State status code notes

SQL Data Type: VARCHAR

SQL Type Qualifiers: 100

Default Nullity: NULL

Derived Data: F

Valid Entries: *Text*

Missing/Invalid: N/A

Used By: STATE_STATUS

STATION

Climate station ID

SQL Data Type: INTEGER

SQL Type Qualifiers:

Default Nullity: NOT NULL

Derived Data: F

Valid Entries: *Integer*

Missing/Invalid: N/A

Used By: CLIMATEDATA

Used By: CLIMATESTATIONS

STATIONNAME

Climate station name

SQL Data Type: VARCHAR

SQL Type Qualifiers: 130

Default Nullity: NOT NULL

Derived Data: F

Valid Entries: *Valid climate station name*

Missing/Invalid: N/A

Used By: CLIMATESTATIONS

STATION_COMMENT

Comments for climate stations

LCTA Data Element/Entity Reference LCTA System

SQL Data Type: VARCHAR

SQL Type Qualifiers: 100

Default Nullity: NULL

Derived Data: F

Valid Entries: Alphanumeric

Missing/Invalid: N/A

Used By: CLIMATESTATIONS

STATUS

Observed erosion status code

SQL Data Type: CHAR

SQL Type Qualifiers: 16

Default Nullity: NOT NULL

Derived Data: F

Valid Entries: Valid erosion status code

Missing/Invalid: N/A

Used By: EROSEVID

Used By: EROS_CODE

STATUS_DEF

Observed erosion code definition

SQL Data Type: CHAR

SQL Type Qualifiers: 35

Default Nullity: NOT NULL

Derived Data: F

Valid Entries: Valid erosion status code definition

Missing/Invalid: N/A

Used By: EROS_CODE

STATUS_NOTE

Note on observed erosion status code

SQL Data Type: VARCHAR

SQL Type Qualifiers: 100

Default Nullity: NULL

Derived Data: F

Valid Entries: Text

Missing/Invalid: N/A

Used By: EROS_CODE

STRUCT_CODE

Soil structure code used to calculate K-value

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

SUBFAM

Vertebrate subfamily

SQL Data Type: *CHAR*

SQL Type Qualifiers: *15*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Species database Subfamily*

Missing/Invalid: *N/A*

Used By: *VERTLIST*

SUBORDER

Vertebrate suborder

SQL Data Type: *CHAR*

SQL Type Qualifiers: *15*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Species database Suborder*

Missing/Invalid: *N/A*

Used By: *VERTLIST*

SUBSPEC

Plant subspecies

SQL Data Type: *CHAR*

SQL Type Qualifiers: *20*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Species database Subspecies*

Missing/Invalid: *N/A*

Used By: *PLNTLIST*

SURVEYOR

Plot surveyor

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *CHAR*

SQL Type Qualifiers: *35*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *PLOTSURV*

SYNAUTH

Author of synonym variety or subspecies

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *150*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *HERBRIUM*

SYNGENUS

Synonym genus

SQL Data Type: *CHAR*

SQL Type Qualifiers: *20*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *HERBRIUM*

SYNSPP

Synonym species

SQL Data Type: *CHAR*

SQL Type Qualifiers: *35*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *HERBRIUM*

SYNVARAUTH

Author of synonym variety or subspecies

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *150*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *HERBRRIUM*

SYNVAR_SSP

Synonym variety or subspecies

SQL Data Type: *CHAR*

SQL Type Qualifiers: *35*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *HERBRRIUM*

T

Soil series soil loss tolerance (T) value

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *SCS T value*

Missing/Invalid: *N/A*

Used By: *EROSION*

Used By: *SOILMAST*

T00TO50

Percent of plots with soil loss tolerance (T) values from 0 to 50

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCTYEARSUM*

T100TO150

Percent of plots with soil loss tolerance (T) values from 100 to 150

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCTTYEARSUM*

T150TO200

Percent of plots with soil loss tolerance (T) values from 150 to 200

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCTTYEARSUM*

T50TO100

Percent of plots with soil loss tolerance (T) values from 50 to 100

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCTTYEARSUM*

TCDB

Total count dwarfshrub broadleaf

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

TCDC

Total count dwarfshrub conifer

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

TCFA

Total count forb annual

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

TCFP

Total count forb perennial

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

TCGA

Total count grass annual

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

TCGP

Total count grass perennial

LCTA Data Element/Entity Reference
LCTA System

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

TCH

Total count halfshrub

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

TCSB

Total count shrub broadleaf

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

TCSC

Total count shrub conifer

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

TCTB

Total count tree broadleaf

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

TCTC

Total count tree conifer

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *COMMCLASSPLOTSUM*

TEMP

Temperature

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *BIRDSURV*

TEMPMAX

Maximum temperature

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *CLIMATEDATA*

Used By: *HERPSURV*

Used By: *MAMSURV*

TEMPMIN

Minimum temperature

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *CLIMATEDATA*

Used By: *HERPSURV*

Used By: *MAMSURV*

TGT200

Percent of plots with soil loss tolerance (T) values greater than 200

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *PCTYEARSUM*

TILL

Number of plots with tillage

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

TOTCLAY

Percent total clay

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

TOTSAND

Percent total sand

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

TOTSILT

Percent total silt

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

TRACK

Percent of plots with evidence of tracked vehicles

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

TRAIN

Plot training area

SQL Data Type: *CHAR*

SQL Type Qualifiers: *8*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text, numbers*

Missing/Invalid: *N/A*

Used By: *PLOTSURV*

TRANLOC

Transect location

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real (0.0-100.0)*

Missing/Invalid: *N/A*

Used By: *BASALA*

Used By: *SOILLS*

TRAPNIGHTS

*Number of trap nights (number of traps * number of nights)*

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *MAMSURV*

TRAPS

Types of traps used for small mammal survey

SQL Data Type: *CHAR*

SQL Type Qualifiers: *25*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *MAMSURV*

TSTYPE

Broadleaf:coniferous type

SQL Data Type: *CHAR*

SQL Type Qualifiers: *1*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *(B)roadleaf,(C)oniferous*

Missing/Invalid: *N/A*

Used By: *PLNTLIST*

UNIT

Units affected

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *LONG_VARCHAR*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text, number*

Missing/Invalid: *N/A*

Used By: *ENVCONST*

UPDATENO

Update version of information

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *ENVCONST*

USENOTE

Land use note

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *254*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text, numbers*

Missing/Invalid: *N/A*

Used By: *LANDUSE*

USGS

USGS quadrangle name

SQL Data Type: *CHAR*

SQL Type Qualifiers: *24*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *USGS quad name*

Missing/Invalid: *N/A*

Used By: *PLOTMAST*

USLE0KCAL

USLE (at location 0 using calculated K)

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *EROSION*

USLE0KPUB

USLE (at transect location 0 using pub K)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *EROSION*

USLE1KCAL

USLE (at location 50 using calculated K)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *EROSION*

USLE1KPUB

USLE (at transect location 50 using pub K)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *EROSION*

USLE2KCAL

USLE (at location 100 using calculated K)

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *-1*

Used By: *EROSION*

USLE2KPUB

USLE (at transect location 100 using pub K)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *EROSION*

USLEMKCAL

USLE (mean of 3 transects using calculated K)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *EROSION*

USLEMKPUB

USLE (mean of 3 transects using pub K)

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *EROSION*

VARAUTH

Author of variety or subspecies

LCTA Data Element/Entity Reference

LCTA System

SQL Data Type: *VARCHAR*

SQL Type Qualifiers: *150*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *HERBRIUM*

VARIETY

Plant Variety

SQL Data Type: *CHAR*

SQL Type Qualifiers: *20*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Species database variety*

Missing/Invalid: *N/A*

Used By: *PLNTLIST*

VCSAND

Soil analysis of very coarse sand

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

VEGCOND

Plant condition

SQL Data Type: *CHAR*

SQL Type Qualifiers: *1*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *(L)ive,(D)ead,(S)tag*

Missing/Invalid: *N/A*

Used By: *BELTMON*

Used By: *BELTSURV*

Used By: *BELTTRAN*

Used By: *GNDCOVER*

Used By: *TACTCONA*

VEGHT

LCTA Data Element/Entity Reference

LCTA System

Aerial plant height name

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *AERCOVER*

VEGID

Plant species code

SQL Data Type: *CHAR*

SQL Type Qualifiers: 8

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Species database plant code*

Missing/Invalid: *N/A*

Used By: *AERCOVER*

Used By: *BELTMON*

Used By: *BELTRAN*

Used By: *GNDCOVER*

Used By: *HERBRUM*

Used By: *PLNTLIST*

Used By: *TACTCONA*

VEGLOC

Transect location along line

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NOT NULL*

Derived Data: *F*

Valid Entries: *Real number (0.0-100.0)*

Missing/Invalid: *-1*

Used By: *AERCOVER*

Used By: *BELTRAN*

Used By: *F_COUNT*

Used By: *GNDCOVER*

Used By: *LINEMON*

VEGTYPE

General plot vegetation type

SQL Data Type: *CHAR*

SQL Type Qualifiers: 30

Default Nullity: *NULL*

LCTA Data Element/Entity Reference
LCTA System

Derived Data: *F*

Valid Entries: *Text*

Missing/Invalid: *N/A*

Used By: *PLOTSURV*

VERTID

Vertebrate species code

SQL Data Type: *CHAR*

SQL Type Qualifiers: *8*

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Species database animal code*

Missing/Invalid: *N/A*

Used By: *BIRDS*

Used By: *HERPS*

Used By: *MAMMALS*

Used By: *VERTLIST*

VFSAND

Soil analysis of very fine sand

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

WANONE

Number of plots with no water erosion

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

WAOBS

Number of plots with water erosion recorded

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

LCTA Data Element/Entity Reference

LCTA System

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

WAPEDPLNT

Number of plots with water pedestal plant erosion

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

WHEEL

Number of plots with wheel traffic

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

WIND

Wind speed

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *BIRDSURV*

Used By: *HERPSURV*

WINONE

Number of plots with no wind erosion

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

LCTA Data Element/Entity Reference
LCTA System

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

WIOBS

Number of plots with wind erosion recorded

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

WIPEDPLNT

Number of plots with wind pedestal plant erosion

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *T*

Valid Entries: *Integer*

Missing/Invalid: *N/A*

Used By: *LANDUSEYEARSUM*

WT20TO75M

20-75 mm weight percentage of soil < 75 mm

SQL Data Type: *REAL*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

WT2TO5MM

2-5 mm weight percentage of soil < 75 mm

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

LCTA Data Element/Entity Reference

LCTA System

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

WT5TO20MM

5-20 mm weight percentage of soil < 75 mm

SQL Data Type: *FLOAT*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Real number*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

YR

Sample year

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Year (yyyy)*

Missing/Invalid: *N/A*

Used By: *SOILSMPL*

ZONE

Universal Trasverse Mercator zone

SQL Data Type: *INTEGER*

SQL Type Qualifiers:

Default Nullity: *NULL*

Derived Data: *F*

Valid Entries: *Valid UTM zone*

Missing/Invalid: *N/A*

Used By: *CLIMATESTATIONS*

Used By: *PLOTMAST*

Appendix D: Data Definition Language (DDL)

Data Definition Language (DDL) is used by the database administrator to define tables, columns, column constraints, unique rules, and referential integrity constraints. The user in most cases will have no use for the DDL, it is only presented here for reference. However, this information can be used to construct a new LCTA database, communicate with others who wish to use the data, or create a LCTA database in another relational database system. The format of the DDL presented here is specific to SQLBase but should be similar to other database management systems following SQL standards.

```
CREATE TABLE AERCOVER (
```

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
VEGLOC	FLOAT NOT NULL,
VEGID	CHAR (8),
VEGHT	FLOAT NOT NULL

```
);
```

```
CREATE TABLE AERCOV_CODE (
```

AERCOV	CHAR (2) NOT NULL,
AERCOV_DEF	CHAR (35) NOT NULL,
AERCOV_NOTE	VARCHAR (100)

```
);
```

```
CREATE TABLE BASALA (
```

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
TRANLOC	INTEGER,
BA	FLOAT

```
);
```

CREATE TABLE BELTMON (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
VEGID	CHAR (8),
VEGCOND	CHAR (1),
CATMINTO1	INTEGER NOT NULL,
CAT1TO2	INTEGER NOT NULL,
CAT2TO3	INTEGER NOT NULL,
CAT3TO4	INTEGER NOT NULL,
CATGT4	INTEGER NOT NULL

CREATE TABLE BELTSURV (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
EXCPTNSP	CHAR (8) NOT NULL,
SIDE	CHAR (1),
VEGCOND	CHAR (1),
BELTWIDE	FLOAT NOT NULL,
BELTHT	FLOAT NOT NULL

CREATE TABLE BELTTRAN (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
VEGID	CHAR (8),
VEGLOC	FLOAT NOT NULL,
SIDE	CHAR (1),
SIDEDIST	FLOAT ,
PLANTHT	FLOAT NOT NULL,
VEGCOND	CHAR (1),
CLMPBEGIN	FLOAT ,
CLMPEND	FLOAT ,
AREA	FLOAT ,
OPT_REAL	FLOAT

CREATE TABLE BIRDS (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
VERTID	CHAR (8),
PERIOD	CHAR (4),
MATED_STATUS	CHAR (8) NOT NULL,
MEASURE_PT	CHAR (2) NOT NULL,
NUM	INTEGER NOT NULL,
FLYOVERS	CHAR (3)

CREATE TABLE BIRDSURV (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
PLOTTYPE	CHAR (8),
COLLECTOR	VARCHAR (70),
CLOUD_COVER	INTEGER,
WIND	INTEGER,
TEMP	INTEGER,
BIRDNOTE	VARCHAR (100)

CREATE TABLE CLIMATEDATA (

INSTALID	CHAR (3) NOT NULL,
STATION	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
RAIN	FLOAT NOT NULL,
TEMPMIN	INTEGER,
TEMPMAX	INTEGER,
PANEVAP	FLOAT

CREATE TABLE CLIMATESTATIONS (

INSTALID	CHAR (3) NOT NULL,
STATION	INTEGER NOT NULL,
STATIONNAME	VARCHAR (130) NOT NULL,
DMCE	INTEGER,

DMCN	INTEGER,
ZONE	INTEGER,
STATION_COMMENT	VARCHAR (100)

```
CREATE TABLE COMMCLASSPLOTSUM (  
    INSTALID          CHAR (3) NOT NULL,  
    ANALYEAR          INTEGER NOT NULL,  
    PLOTID             INTEGER NOT NULL,  
    PCCTYPE           CHAR (4),  
    PCCCODE            CHAR (8),  
    MCCTYPE           CHAR (4),  
    MCCCCODE           CHAR (8),  
    ATGA              INTEGER,  
    ATGP              INTEGER,  
    ATFA              INTEGER,  
    ATFP              INTEGER,  
    ATH               INTEGER,  
    ATDC              INTEGER,  
    ATDB              INTEGER,  
    ATSC              INTEGER,  
    ATSB              INTEGER,  
    ATTC              INTEGER,  
    ATTB              INTEGER,  
    PAGA              INTEGER,  
    PAGP              INTEGER,  
    PAFA              INTEGER,  
    PAFP              INTEGER,  
    PAH               INTEGER,  
    PADC              INTEGER,  
    PADB              INTEGER,  
    PASC              INTEGER,  
    PASB              INTEGER,  
    PATC              INTEGER,  
    PATB              INTEGER,  
    TCGA              INTEGER,  
    TCGP              INTEGER,  
    TCFA              INTEGER,  
    TCFP              INTEGER,  
    TCH               INTEGER,  
    TCDC              INTEGER,
```

TCDB	INTEGER,
TCSC	INTEGER,
TCSB	INTEGER,
TCTC	INTEGER,
TCTB	INTEGER

CREATE TABLE DISTURB_CODE (

DISTURB	CHAR (2) NOT NULL,
DISTURB_DEF	CHAR (35) NOT NULL,
DISTURB_NOTE	VARCHAR (100)

CREATE TABLE ENVCONST (

INSTALID	CHAR (3) NOT NULL,
CASENO	INTEGER,
UNIT	LONG VARCHAR,
RESTRAINT	LONG VARCHAR,
IMPACT	LONG VARCHAR,
REALISM	LONG VARCHAR,
MITIGATION	LONG VARCHAR,
RESEARCH	LONG VARCHAR,
RECDATE	DATE NOT NULL,
UPDATENO	INTEGER

CREATE TABLE EROSEVID (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
STATUS	CHAR (16) NOT NULL

CREATE TABLE EROSION (

INSTALID	CHAR (3) NOT NULL,
ANALYEAR	INTEGER NOT NULL,
PLOTID	INTEGER NOT NULL,
USLEMKPUB	FLOAT ,
USLE0KPUB	FLOAT ,
USLE1KPUB	FLOAT ,
USLE2KPUB	FLOAT ,

USLEMKCAL	FLOAT ,
USLE0KCAL	FLOAT ,
USLE1KCAL	FLOAT ,
USLE2KCAL	FLOAT ,
LSM	FLOAT ,
LS0	FLOAT ,
LS1	FLOAT ,
LS2	FLOAT ,
PCTTKPUB	FLOAT ,
PCTTKCAL	FLOAT ,
KPUBEROSINDEX	FLOAT ,
KCALEROSINDEX	FLOAT ,
KPUB	FLOAT ,
KCAL	FLOAT ,
RVAL	FLOAT ,
C	FLOAT ,
C1	FLOAT ,
C2	FLOAT ,
T	FLOAT ,
PGNDCOV	INTEGER,
PAERCOV	INTEGER,
AVEMINHT	FLOAT ,
EFFCOVER	FLOAT ,
HABDIVIS	FLOAT

```
CREATE TABLE EROS_CODE (
  STATUS          CHAR (16) NOT NULL,
  STATUS_DEF      CHAR (35) NOT NULL,
  STATUS_NOTE     VARCHAR (100)
```

```
CREATE TABLE FED_STATUS (
  FEDSTAT        CHAR (6) NOT NULL,
  FEDSTAT_DEF    VARCHAR (50) NOT NULL,
  FEDSTAT_NOTE   VARCHAR (100)
```

CREATE TABLE F_COUNT (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
VEGLOC	FLOAT NOT NULL,
OPT_TEXT1	CHAR (8),
OPT_TEXT2	CHAR (8),
OPT_TEXT3	CHAR (8),
OPT_TEXT4	CHAR (8),
OPT_TEXT5	CHAR (8)

);

CREATE TABLE GNDCOVER (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
VEGLOC	FLOAT NOT NULL,
DISTURB	CHAR (2) NOT NULL,
VEGID	CHAR (8),
VEGCOND	CHAR (1),
OPT_TEXT	CHAR (8)

);

CREATE TABLE GNDCOV_CODE (

GNDCOV	CHAR (2) NOT NULL,
GNDCOV_DEF	CHAR (35) NOT NULL,
GNDCOV_NOTE	VARCHAR (100)

);

CREATE TABLE GROUPING (

PLOTID	INTEGER NOT NULL,
INSTALID	CHAR (3) NOT NULL

);

CREATE TABLE HERBRIUM (

INSTALID	CHAR (3) NOT NULL,
VEGID	CHAR (8),
FAMILY	CHAR (20),
GENUS	CHAR (20),
SPECIES	CHAR (35),
BAUTHOR	VARCHAR (150),

VAR_SSP	CHAR (35),
VARAUTH	VARCHAR (150),
SYNGENUS	CHAR (20),
SYNSPP	CHAR (35),
SYNAUTH	VARCHAR (150),
SYNVAR_SSP	CHAR (35),
SYNVARAUTH	VARCHAR (150),
COMMON	CHAR (40),
COLLNO	INTEGER NOT NULL,
COLLDATE	DATE,
COLLECTOR	VARCHAR (70),
DETERMIN	CHAR (20),
LOCALITY	VARCHAR (224),
COUNTY	VARCHAR (30),
DMCE	INTEGER,
DMCN	INTEGER,
ELEV	INTEGER,
ASSOSPP	VARCHAR (150),
SOILTOPO	VARCHAR (150),
HABIT	CHAR (6),
ABUNDANCE	INTEGER,
FEDSTAT	CHAR (6) NOT NULL,
STATESTAT	CHAR (6) NOT NULL,
COMMENTS	VARCHAR (175)

CREATE TABLE HERPS (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
VERTID	CHAR (8),
SEX	CHAR (1) NOT NULL,
METHOD	CHAR (3) NOT NULL,
NUM	INTEGER NOT NULL,
RETRAP	INTEGER

CREATE TABLE HERPSURV (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,

PLOTTYPE	CHAR (8),
COLLECTOR	VARCHAR (70),
AZIMUTH	REAL,
LOC	INTEGER,
TEMPMAX	INTEGER,
TEMPMIN	INTEGER,
CLOUD_COVER	INTEGER,
WIND	INTEGER,
HERPNOTE	VARCHAR (100)

);

CREATE TABLE HISTORY (

INSTALID	CHAR (3) NOT NULL,
RECDATE	DATE NOT NULL,
RECORDER	CHAR (35),
INSTNOTE	VARCHAR (254)

);

CREATE TABLE INSTMAST (

INSTALID	CHAR (3) NOT NULL,
INNAME	CHAR (30) NOT NULL,
INLOC	CHAR (40),
INSIZE	FLOAT

);

CREATE TABLE LANDUSE (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
LANDUSE	CHAR (16) NOT NULL,
USENOTE	VARCHAR (254)

);

CREATE TABLE LANDUSEYEARSUM (

INSTALID	CHAR (3) NOT NULL,
ANALYEAR	INTEGER NOT NULL,
MOBS	INTEGER,
MNONE	INTEGER,
WHEEL	INTEGER,
TRACK	INTEGER,
EXCA	INTEGER,

FOOT	INTEGER,
BIV	INTEGER,
DEMO	INTEGER,
MOTHER	INTEGER,
NMOBS	INTEGER,
NMNONE	INTEGER,
GRAZING	INTEGER,
CROP	INTEGER,
FOREST	INTEGER,
HAY	INTEGER,
NMOTHER	INTEGER,
MAOBS	INTEGER,
MANONE	INTEGER,
PREBURN	INTEGER,
ACCBURN	INTEGER,
TILL	INTEGER,
MOW	INTEGER,
SEED	INTEGER,
PLANT	INTEGER,
CHEMICAL	INTEGER,
MAOTHER	INTEGER,
WIOBS	INTEGER,
WINONE	INTEGER,
DRIFTING	INTEGER,
SCOURING	INTEGER,
WIPEDPLNT	INTEGER,
WAOBS	INTEGER,
WANONE	INTEGER,
SHEET	INTEGER,
GULLY	INTEGER,
WAPEDPLNT	INTEGER,
DEBDAM	INTEGER,
MEALLOBS	INTEGER,
MEALLVIS	INTEGER,
LEALLOBS	INTEGER,
LEALLVIS	INTEGER,
MEWAOBS	INTEGER,
MEWAVIS	INTEGER,
LEWAOBS	INTEGER,
LEWAVIS	INTEGER,
MEWIOBS	INTEGER,

```
        MEWIVIS          INTEGER,
        LEWIOBS          INTEGER,
        LEWIVIS          INTEGER
    );

CREATE TABLE LANDUSE_CODE (
    LANDUSE              CHAR (16) NOT NULL,
    LANDUSE_DEF          CHAR (35) NOT NULL,
    LANDUSE_NOTE         VARCHAR (100)
);

CREATE TABLE LINEMON (
    INSTALID            CHAR (3) NOT NULL,
    PLOTID              INTEGER NOT NULL,
    RECDATE             DATE NOT NULL,
    VEGLOC              FLOAT NOT NULL,
    DISTURB             CHAR (2) NOT NULL,
    GNDCOV              CHAR (2) NOT NULL,
    AERCOV              CHAR (2) NOT NULL,
    OPT_TEXT            CHAR (8)
);

CREATE TABLE MAINT_CODE (
    MAINTAIN            CHAR (16) NOT NULL,
    MAINTAIN_DEF        CHAR (35) NOT NULL,
    MAINTAIN_NOTE       VARCHAR (100)
);

CREATE TABLE MAINTACT (
    INSTALID            CHAR (3) NOT NULL,
    PLOTID              INTEGER NOT NULL,
    RECDATE             DATE NOT NULL,
    MAINTAIN            CHAR (16) NOT NULL,
    MAINNOTE            VARCHAR (254)
);

CREATE TABLE MAMMALS (
    INSTALID            (3) NOT NULL,
    PLOTID              INTEGER NOT NULL,
    RECDATE             DATE NOT NULL,
    VERTID              (8),
```

SEX	CHAR (1) NOT NULL,
METHOD	(3) NOT NULL,
NUM	INTEGER NOT NULL,
RETRAP	INTEGER

CREATE TABLE MAMSURV (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
PLOTTYPE	CHAR (8),
COLLECTOR	VARCHAR (70),
TRAPS	CHAR (25),
TRAPNIGHTS	INTEGER,
BAITS	CHAR (25),
TEMPMAX	INTEGER,
TEMPMIN	INTEGER,
CLOUD_COVER	INTEGER,
PRECIP	FLOAT ,
MAMNOTE	VARCHAR (100)

CREATE TABLE MAPS (

INSTALID	CHAR (3) NOT NULL,
MAPNAME	VARCHAR (32) NOT NULL,
DMCELL	INTEGER NOT NULL,
DMCETR	INTEGER NOT NULL,
DMCNLL	INTEGER NOT NULL,
DMCNTR	INTEGER NOT NULL,
MAP	LONG VARCHAR NOT NULL

CREATE TABLE PCSDPLOTSUM (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
ANALYEAR	INTEGER NOT NULL,
PLOTTYPE	CHAR (8),
GDOBS	INTEGER,
GDNONE	INTEGER,
GDROAD	INTEGER,
GDPASS	INTEGER,

GDTRAIL	INTEGER,
GDOTHER	INTEGER,
GCOBS	INTEGER,
GCBARE	INTEGER,
GCLITTER	INTEGER,
GCROCK	INTEGER,
GCPLANT	INTEGER,
GCMICRO	INTEGER,
CCOBS	INTEGER,
CCNONE	INTEGER,
CCANN	INTEGER,
CCPER	INTEGER,
CCANNPER	INTEGER,
ACOB	INTEGER,
AC4M	INTEGER

);

CREATE TABLE PCSDYEARSUM (

INSTALID	CHAR (3) NOT NULL,
ANALYEAR	INTEGER NOT NULL,
GDNONEMEAN	FLOAT ,
GDNONESTDEV	FLOAT ,
GDROADMEAN	FLOAT ,
GDROADSTDEV	FLOAT ,
GDPASSMEAN	FLOAT ,
GDPASSSTDEV	FLOAT ,
GDTRAILMEAN	FLOAT ,
GDTRAILSTDEV	FLOAT ,
GDOTHMEAN	FLOAT ,
GDOTHSTDEV	FLOAT ,
GCBAREMEAN	FLOAT ,
GCBARESTDEV	FLOAT ,
GCLITMEAN	FLOAT ,
GCLITSTDEV	FLOAT ,
GCROCKMEAN	FLOAT ,
GCROCKSTDEV	FLOAT ,
GCPLANTMEAN	FLOAT ,
GCPLANTSTDEV	FLOAT ,
GCMICROMEAN	FLOAT ,
GCMICROSTDEV	FLOAT ,
CCNONEMEAN	FLOAT ,

CCNONESTDEV	FLOAT ,
CCANNMEAN	FLOAT ,
CCANNSTDEV	FLOAT ,
CCPERMEAN	FLOAT ,
CCPERSTDEV	FLOAT ,
CCAPMEAN	FLOAT ,
CCAPSTDEV	FLOAT ,
ACMEAN	FLOAT ,
ACSTDEV	FLOAT ,
AC00	FLOAT ,
AC20	FLOAT ,
AC40	FLOAT ,
AC60	FLOAT ,
AC80	FLOAT ,
AC100	FLOAT

CREATE TABLE PCTTYEARSUM (

INSTALID	CHAR (3) NOT NULL,
ANALYEAR	INTEGER NOT NULL,
OBS	INTEGER,
T00TO50	INTEGER,
T50TO100	INTEGER,
T100TO150	INTEGER,
T150TO200	INTEGER,
TGT200	INTEGER

CREATE TABLE PLNTLIST (

VEGID	CHAR (8),
FAMILY	CHAR (20),
GENUS	CHAR (20),
SPEC	CHAR (25),
SUBSPEC	CHAR (20),
VARIETY	CHAR (20),
LIFE	CHAR (1),
ORIGIN	CHAR (1),
FORM1	CHAR (1),

FORM2	CHAR (1),
TSTYPE	CHAR (1),
SYNON	CHAR (8)

);

CREATE TABLE PLOTMAPS (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
GENMAP	LONG VARCHAR,
LOCMAP	LONG VARCHAR,
MISCMAP	LONG VARCHAR,
PHOTOS	LONG VARCHAR

);

CREATE TABLE PLOTMAST (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
DMCE	INTEGER,
DMCN	INTEGER,
ZONE	INTEGER,
PLDATE	DATE NOT NULL,
USGS	CHAR (24),
SOILSER	CHAR (8),
RVAL	FLOAT ,
AZIMUTH	REAL,
DECLIN	FLOAT

);

CREATE TABLE PLOTSURV (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
INVTYPE	CHAR (2) NOT NULL,
PLOTTYPE	CHAR (8),
SURVEYOR	CHAR (35),
RECORDER	CHAR (35),
TRAIN	CHAR (8),
VEGTYPE	CHAR (30),

ASPECT	CHAR (2),
SOILDPH	CHAR (3),
PLOTNOTE	LONG VARCHAR

CREATE TABLE SOILS (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
RECDATE	DATE NOT NULL,
TRANLOC	INTEGER,
SLOPE	FLOAT,
SLPLEN	FLOAT

CREATE TABLE SOILMAST (

SOILSER	CHAR (8),
SOILNAME	CHAR (40),
PUBLK	FLOAT,
CALCKMEAN	FLOAT,
CALCKSTDEV	FLOAT,
T	FLOAT,
SOILCAT	INTEGER

CREATE TABLE SOILSMPL (

INSTALID	CHAR (3) NOT NULL,
PLOTID	INTEGER NOT NULL,
YR	INTEGER,
LABK	FLOAT,
TOTCLAY	FLOAT,
TOTSILT	FLOAT,
TOTSAND	FLOAT,
CO3CLAY	FLOAT,
FSILT	FLOAT,
CSILT	FLOAT,
VFSAND	FLOAT,
FSAND	FLOAT,
MSAND	FLOAT,
CSAND	FLOAT,
VCSAND	FLOAT,
WT2TO5MM	FLOAT,


```
WT5TO20MM          FLOAT ,
WT20TO75M          REAL,
COURFRAG           FLOAT ,
ORGCARB            FLOAT ,
ORGMATT            FLOAT ,
BARCLAY            FLOAT ,
BARWATER           FLOAT ,
CARBLT2MM          FLOAT ,
PH1TO2             FLOAT ,
PH1TO1             FLOAT ,
SOILNOTE           VARCHAR (254),
STRUCT_CODE        INTEGER,
PERM_CLASS         INTEGER
);

CREATE TABLE STATE_STATUS (
    STATESTAT        CHAR (6) NOT NULL,
    STATESTAT_DEF    VARCHAR (50) NOT NULL,
    STATESTAT_NOTE   VARCHAR (100)
);

CREATE TABLE TACTCONA (
    INSTALID         CHAR (3) NOT NULL,
    ANALYEAR         INTEGER NOT NULL,
    PLOTID           INTEGER NOT NULL,
    VEGID            CHAR (8),
    LIFEFORM         CHAR (1),
    VEGCOND          CHAR (1),
    HTMINTO1         INTEGER,
    HT1TO2           INTEGER,
    HT2TO3           INTEGER,
    HT3TO4           INTEGER,
    HTGT4            INTEGER
);

CREATE TABLE VERTLIST (
    VERTID           CHAR (8),
    CLASS            CHAR (15),
    ORDERS           CHAR (20),
    SUBORDER         CHAR (15),
    FAMILY           CHAR (20),
```

SUBFAM	CHAR (15),
GENUS	CHAR (20),
SPEC	CHAR (25),
COMMON	CHAR (40),
AUTHORS	CHAR (35),
VERTSTAT	CHAR (70),
VERTNOTE	VARCHAR (254)

CREATE UNIQUE INDEX AERCOV_CODE_KEY ON AERCOV_CODE (
AERCOV);

CREATE UNIQUE INDEX BIRDSURV_KEY ON BIRDSURV (
INSTALID,
PLOTID,
RECDATE);

CREATE UNIQUE INDEX CLIMATESTATIONS_KEY ON CLIMATESTATIONS (
INSTALID,
STATION);

CREATE UNIQUE INDEX DISTURB_CODE_KEY ON DISTURB_CODE (
DISTURB);

CREATE UNIQUE INDEX EROS_CODE_KEY ON EROS_CODE (
STATUS);

CREATE UNIQUE INDEX FED_STATUS_KEY ON FED_STATUS (
FEDSTAT);

CREATE UNIQUE INDEX GNDCOV_CODE_KEY ON GNDCOV_CODE (
GNDCOV);

CREATE UNIQUE INDEX GROUPING_KEY ON GROUPING (
PLOTID,
INSTALID);

CREATE UNIQUE INDEX HERPSURV_KEY ON HERPSURV (
INSTALID,
PLOTID,
RECDATE);

```
CREATE UNIQUE INDEX INSTMAST_KEY ON INSTMAST (  
    INSTALID);
```

```
CREATE UNIQUE INDEX LANDUSE_CODE_KEY ON LANDUSE_CODE (  
    LANDUSE);
```

```
CREATE UNIQUE INDEX MAINT_CODE_KEY ON MAINT_CODE (  
    MAINTAIN);
```

```
CREATE UNIQUE INDEX MAMSURV_KEY ON MAMSURV (  
    INSTALID,  
    PLOTID,  
    RECDATE);
```

```
CREATE UNIQUE INDEX PLNTLIST_KEY ON PLNTLIST (  
    VEGID);
```

```
CREATE UNIQUE INDEX PLOTMAST_KEY ON PLOTMAST (  
    INSTALID,  
    PLOTID);
```

```
CREATE UNIQUE INDEX PLOTSURV_KEY ON PLOTSURV (  
    INSTALID,  
    PLOTID,  
    RECDATE);
```

```
CREATE UNIQUE INDEX STATE_STATUS_KEY ON STATE_STATUS (  
    STATESTAT);
```

```
CREATE UNIQUE INDEX VERTLIST_KEY ON VERTLIST (  
    VERTID);
```

```
ALTER TABLE ENVCONST  
    PRIMARY KEY ();
```

```
ALTER TABLE ENVCONST  
    FOREIGN KEY FK_ENVCONST_1 ((INSTALID))  
    REFERENCES INSTMAST ON DELETE RESTRICT;
```

```
ALTER TABLE INSTMAST  
    PRIMARY KEY (INSTALID);
```

ALTER TABLE HERPSURV

PRIMARY KEY (INSTALID, PLOTID, RECDATE);

ALTER TABLE HERPSURV

FOREIGN KEY FK_HERPSURV_1 ((INSTALID))

REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE MAMSURV

PRIMARY KEY (INSTALID, PLOTID, RECDATE);

ALTER TABLE MAMSURV

FOREIGN KEY FK_MAMSURV_1 ((INSTALID))

REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE METHODS_CODE

PRIMARY KEY (METHOD);

ALTER TABLE HERPS

PRIMARY KEY ();

ALTER TABLE HERPS

FOREIGN KEY FK_HERPS_1 ((METHOD))

REFERENCES METHODS_CODE ON DELETE RESTRICT;

FOREIGN KEY FK_HERPS_2 ((INSTALID, PLOTID, RECDATE))

REFERENCES HERPSURV ON DELETE RESTRICT;

FOREIGN KEY FK_HERPS_3 ((SEX))

REFERENCES GENDER_CODE ON DELETE RESTRICT;

ALTER TABLE MAMMALS

PRIMARY KEY ();

ALTER TABLE MAMMALS

FOREIGN KEY FK_MAMMALS_1 ((METHOD))

REFERENCES METHODS_CODE ON DELETE RESTRICT;

FOREIGN KEY FK_MAMMALS_2 ((INSTALID, PLOTID, RECDATE))

REFERENCES MAMSURV ON DELETE RESTRICT;

FOREIGN KEY FK_MAMMALS_3 ((SEX))

REFERENCES GENDER_CODE ON DELETE RESTRICT;

ALTER TABLE GENDER_CODE

PRIMARY KEY (SEX);

ALTER TABLE POINT_CODE
PRIMARY KEY (MEASURE_PT);

ALTER TABLE BIRDS
PRIMARY KEY ();

ALTER TABLE BIRDS
FOREIGN KEY FK_BIRDS_1 ((MEASURE_PT))
REFERENCES POINT_CODE ON DELETE RESTRICT;
FOREIGN KEY FK_BIRDS_2 ((MATED_STATUS))
REFERENCES MATED_STATUS_CODE ON DELETE RESTRICT;

ALTER TABLE MATED_STATUS_CODE
PRIMARY KEY (MATED_STATUS);

ALTER TABLE PLOTSURV
PRIMARY KEY (INSTALID, PLOTID, RECDATE);

ALTER TABLE PLOTSURV
FOREIGN KEY FK_PLOTSURV_1 ((INSTALID, PLOTID))
REFERENCES PLOTMAST ON DELETE RESTRICT;

ALTER TABLE MAINTACT
PRIMARY KEY ();

ALTER TABLE MAINTACT
FOREIGN KEY FK_MAINTACT_1 ((INSTALID, PLOTID, RECDATE))
REFERENCES PLOTSURV ON DELETE RESTRICT;
FOREIGN KEY FK_MAINTACT_2 ((MAINTAIN))
REFERENCES MAINT_CODE ON DELETE RESTRICT;

ALTER TABLE LINEMON
PRIMARY KEY ();

ALTER TABLE LINEMON
FOREIGN KEY FK_LINEMON_1 ((DISTURB))
REFERENCES DISTURB_CODE ON DELETE RESTRICT;
FOREIGN KEY FK_LINEMON_2 ((AERCOV))
REFERENCES AERCOV_CODE ON DELETE RESTRICT;
FOREIGN KEY FK_LINEMON_3 ((GNDCOV))

REFERENCES GNDCOV_CODE ON DELETE RESTRICT;
FOREIGN KEY FK_LINEMON_4 ((INSTALID, PLOTID, RECDATE))
REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE DISTURB_CODE
PRIMARY KEY (DISTURB);

ALTER TABLE AERCOV_CODE
PRIMARY KEY (AERCOV);

ALTER TABLE GNDCOV_CODE
PRIMARY KEY (GNDCOV);

ALTER TABLE LANDUSE
PRIMARY KEY ();

ALTER TABLE LANDUSE
FOREIGN KEY FK_LANDUSE_1 ((INSTALID, PLOTID, RECDATE))
REFERENCES PLOTSURV ON DELETE RESTRICT;
FOREIGN KEY FK_LANDUSE_2 ((LANDUSE))
REFERENCES LANDUSE_CODE ON DELETE RESTRICT;

ALTER TABLE LANDUSE_CODE
PRIMARY KEY (LANDUSE);

ALTER TABLE GNDCOVER
PRIMARY KEY ();

ALTER TABLE GNDCOVER
FOREIGN KEY FK_GNDCOVER_1 ((INSTALID, PLOTID, RECDATE))
REFERENCES PLOTSURV ON DELETE RESTRICT;
FOREIGN KEY FK_GNDCOVER_2 ((DISTURB))
REFERENCES DISTURB_CODE ON DELETE RESTRICT;

ALTER TABLE F_COUNT
PRIMARY KEY ();

ALTER TABLE F_COUNT
FOREIGN KEY FK_F_COUNT_1 ((INSTALID, PLOTID, RECDATE))
REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE EROSEVID
PRIMARY KEY ();

ALTER TABLE EROSEVID
FOREIGN KEY FK_EROSEVID_1 ((INSTALID, PLOTID, RECDATE))
REFERENCES PLOTSURV ON DELETE RESTRICT;
FOREIGN KEY FK_EROSEVID_2 ((STATUS))
REFERENCES EROS_CODE ON DELETE RESTRICT;

ALTER TABLE EROS_CODE
PRIMARY KEY (STATUS);

ALTER TABLE BELTTRAN
PRIMARY KEY ();

ALTER TABLE BELTTRAN
FOREIGN KEY FK_BELTTRAN_1 ((INSTALID, PLOTID, RECDATE))
REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE BELTSURV
PRIMARY KEY ();

ALTER TABLE BELTSURV
FOREIGN KEY FK_BELTSURV_1 ((INSTALID, PLOTID, RECDATE))
REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE AERCOVER
PRIMARY KEY ();

ALTER TABLE AERCOVER
FOREIGN KEY FK_AERCOVER_1 ((INSTALID, PLOTID, RECDATE))
REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE PLOTMAST
PRIMARY KEY (INSTALID, PLOTID);

ALTER TABLE PLOTMAST
FOREIGN KEY FK_PLOTMAST_1 ((INSTALID))
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE PLOTMAPS
PRIMARY KEY ();

ALTER TABLE PLOTMAPS
FOREIGN KEY FK_PLOTMAPS_1 ((INSTALID, PLOTID))
REFERENCES PLOTMAST ON DELETE RESTRICT;

ALTER TABLE HISTORY
PRIMARY KEY ();

ALTER TABLE HISTORY
FOREIGN KEY FK_HISTORY_1 ((INSTALID))
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE BELTMON
PRIMARY KEY ();

ALTER TABLE BELTMON
FOREIGN KEY FK_BELTMON_1 ((INSTALID, PLOTID, RECDATE))
REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE BASALA
PRIMARY KEY ();

ALTER TABLE BASALA
FOREIGN KEY FK_BASALA_1 ((INSTALID, PLOTID, RECDATE))
REFERENCES PLOTSURV ON DELETE RESTRICT;

ALTER TABLE MAINT_CODE
PRIMARY KEY (MAINTAIN);

ALTER TABLE GROUPING
PRIMARY KEY (PLOTID, INSTALID);

ALTER TABLE SOILSMPL
PRIMARY KEY ();

ALTER TABLE SOILSMPL
FOREIGN KEY FK_SOILSMPL_1 ((INSTALID, PLOTID))
REFERENCES PLOTMAST ON DELETE RESTRICT;

ALTER TABLE CLIMATESTATIONS
PRIMARY KEY (INSTALID, STATION);

ALTER TABLE CLIMATESTATIONS
FOREIGN KEY FK_CLIMATESTATIONS_1 ((INSTALID))
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE MAPS
PRIMARY KEY ();

ALTER TABLE MAPS
FOREIGN KEY FK_MAPS_1 ((INSTALID))
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE CLIMATEDATA
PRIMARY KEY ();

ALTER TABLE CLIMATEDATA
FOREIGN KEY FK_CLIMATEDATA_1 ((INSTALID, STATION))
REFERENCES CLIMATESTATIONS ON DELETE RESTRICT;

ALTER TABLE PCSDYEARSUM
PRIMARY KEY ();

ALTER TABLE PCSDYEARSUM
FOREIGN KEY FK_PCSDYEARSUM_1 ((INSTALID))
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE EROSION
PRIMARY KEY ();

ALTER TABLE EROSION
FOREIGN KEY FK_EROSION_1 ((INSTALID))
REFERENCES INSTMAST ON DELETE RESTRICT;
FOREIGN KEY FK_EROSION_2 ((INSTALID, PLOTID))
REFERENCES PLOTMAST ON DELETE RESTRICT;

ALTER TABLE COMMCLASSPLOTSUM
PRIMARY KEY ();

ALTER TABLE COMMCLASSPLOTSUM

FOREIGN KEY FK_COMMCLASSPLOTSUM_1 ((INSTALID))
REFERENCES INSTMAST ON DELETE RESTRICT;
FOREIGN KEY FK_COMMCLASSPLOTSUM_2 ((INSTALID, PLOTID))
REFERENCES PLOTMAST ON DELETE RESTRICT;

ALTER TABLE PCSDPLOTSUM

PRIMARY KEY ();

ALTER TABLE PCSDPLOTSUM

FOREIGN KEY FK_PCSDPLOTSUM_1 ((INSTALID))
REFERENCES INSTMAST ON DELETE RESTRICT;
FOREIGN KEY FK_PCSDPLOTSUM_2 ((INSTALID, PLOTID))
REFERENCES PLOTMAST ON DELETE RESTRICT;

ALTER TABLE TACTCONA

PRIMARY KEY ();

ALTER TABLE TACTCONA

FOREIGN KEY FK_TACTCONA_1 ((INSTALID))
REFERENCES INSTMAST ON DELETE RESTRICT;
FOREIGN KEY FK_TACTCONA_2 ((INSTALID, PLOTID))
REFERENCES PLOTMAST ON DELETE RESTRICT;

ALTER TABLE PCTTYEARSUM

PRIMARY KEY ();

ALTER TABLE PCTTYEARSUM

FOREIGN KEY FK_PCTTYEARSUM_1 ((INSTALID))
REFERENCES INSTMAST ON DELETE RESTRICT;

ALTER TABLE HERBRIUM

PRIMARY KEY ();

ALTER TABLE HERBRIUM

FOREIGN KEY FK_HERBRIUM_1 ((FEDSTAT))
REFERENCES FED_STATUS ON DELETE RESTRICT;
FOREIGN KEY FK_HERBRIUM_2 ((STATESTAT))
REFERENCES STATE_STATUS ON DELETE RESTRICT;
FOREIGN KEY FK_HERBRIUM_3 ((INSTALID))
REFERENCES INSTMAST ON DELETE RESTRICT;

```
ALTER TABLE FED_STATUS  
    PRIMARY KEY (FEDSTAT);
```

```
ALTER TABLE STATE_STATUS  
    PRIMARY KEY (STATESTAT);
```

Species

```
CREATE TABLE FOOD_INFO (  
    FOOD_TYPE          CHAR (4) NOT NULL,  
    FOOD_DEF           VARCHAR (35) NOT NULL,  
    FOOD_NOTE          VARCHAR (100)  
);
```

```
CREATE TABLE GENERAL_HABITAT (  
    VERTID             CHAR (8),  
    GEN_HABITAT        CHAR (4) NOT NULL  
);
```

```
CREATE TABLE HABITAT_INFO (  
    GEN_HABITAT        CHAR (4) NOT NULL,  
    HABITAT_DEF        VARCHAR (35) NOT NULL,  
    HABITAT_NOTE       VARCHAR (100)  
);
```

```
CREATE TABLE LOC_INFO (  
    NEST_LOC           CHAR (4) NOT NULL,  
    LOC_DEF            VARCHAR (35) NOT NULL,  
    LOC_NOTE           VARCHAR (100)  
);
```

```
CREATE TABLE MATED_STATUS_CODE (  
    MATED_STATUS       CHAR (8) NOT NULL,  
    MSTATUS_DEF        CHAR (8) NOT NULL,  
    MSTATUS_NOTE       VARCHAR (100)  
);
```

CREATE TABLE NEOTROPICAL (

VERTID	CHAR (8),
NEOTROP	CHAR (4) NOT NULL

CREATE TABLE NEOTROPIC_INFO (

NEOTROP	CHAR (4) NOT NULL,
NEOTROP_DEF	VARCHAR (35) NOT NULL,
NEOTROP_NOTE	VARCHAR (100)

CREATE TABLE NEST_LOCATION (

VERTID	CHAR (8),
NEST_LOC	CHAR (4) NOT NULL

CREATE TABLE PLANTS (

VEGID	CHAR (8),
FAMILY	CHAR (20),
GENUS	CHAR (20),
SPEC	CHAR (25),
SUBSPEC	CHAR (20),
VARIETY	CHAR (20),
LIFE	CHAR (1),
ORIGIN	CHAR (1),
FORM	CHAR (8),
FORM2	CHAR (1),
FORM3	CHAR (8),
FORM4	CHAR (8),
FORM5	CHAR (8),
FORM6	CHAR (8),
HYBRID	CHAR (8),
SYNON	CHAR (8),
VEGSTAT	CHAR (8),
VEGDIST1	CHAR (8),
VEGDIST2	CHAR (8),
VEGDIST3	CHAR (8),
VEGDIST4	CHAR (8),
VEGDIST5	CHAR (8),
VEGDIST6	CHAR (8),
VEGDIST7	CHAR (8),

```
VEGDIST8          CHAR (8),
VEGDIST9          CHAR (8),
VEGDST10         CHAR (8),
VEGDST11         CHAR (8),
VEGDST12         CHAR (8),
VEGDST13         CHAR (8),
VEGDST14         CHAR (8),
VEGDST15         CHAR (8),
VEGDST16         CHAR (8),
VEGDST17         CHAR (8),
VEGDST18         CHAR (8),
VEGDST19         CHAR (8),
VEGDST20         CHAR (8),
RECDATE          DATE NOT NULL
);

CREATE TABLE SEASON_INFO (
    SEASON          CHAR (4) NOT NULL,
    SEASON_DEF      VARCHAR (35) NOT NULL,
    SEASON_NOTE     VARCHAR (100)
);

CREATE TABLE SFST (
    VERTID          CHAR (8),
    SEASON          CHAR (4) NOT NULL,
    FOOD_TYPE       CHAR (4) NOT NULL,
    SUBSTRATE       CHAR (4) NOT NULL,
    TECHNIQUE       CHAR (4) NOT NULL
);

CREATE TABLE SPP_INFO (
    VERTID          CHAR (8),
    ALPHA_CODE      CHAR (8),
    AOU_NUM         CHAR (8)
);

CREATE TABLE SUBSTRATE_INFO (
    SUBSTRATE       CHAR (4) NOT NULL,
    SUBSTRATE_DEF   VARCHAR (35) NOT NULL,
    SUBSTRATE_NOTE  VARCHAR (100)
);
```

```
CREATE TABLE TECHNIQUE_INFO (  
    TECHNIQUE          CHAR (4) NOT NULL,  
    TECHNIQUE_DEF      VARCHAR (35) NOT NULL,  
    TECHNIQUE_NOTE     VARCHAR (100)
```

```
CREATE TABLE TSTYPE (  
    VEGID              CHAR (8),  
    TSTYPE             CHAR (1)
```

```
CREATE UNIQUE INDEX FOOD_INFO_KEY ON FOOD_INFO (  
    FOOD_TYPE);
```

```
CREATE UNIQUE INDEX GENERAL_HABITAT_KEY ON GENERAL_HABITAT (  
    GEN_HABITAT,  
    VERTID);
```

```
CREATE UNIQUE INDEX HABITAT_INFO_KEY ON HABITAT_INFO (  
    GEN_HABITAT);
```

```
CREATE UNIQUE INDEX LOC_INFO_KEY ON LOC_INFO (  
    NEST_LOC);
```

```
CREATE UNIQUE INDEX MATED_STATUS_CODE_KEY ON  
    MATED_STATUS_CODE (  
    MATED_STATUS);
```

```
CREATE UNIQUE INDEX NEOTROPICAL_KEY ON NEOTROPICAL (  
    VERTID,  
    NEOTROP);
```

```
CREATE UNIQUE INDEX NEOTROPIC_INFO_KEY ON NEOTROPIC_INFO (  
    NEOTROP);
```

```
CREATE UNIQUE INDEX NEST_LOCATION_KEY ON NEST_LOCATION (  
    NEST_LOC,  
    VERTID);
```

CREATE UNIQUE INDEX PLANTS_KEY ON PLANTS (
VEGID);

CREATE UNIQUE INDEX SEASON_INFO_KEY ON SEASON_INFO (
SEASON);

CREATE UNIQUE INDEX SFST_KEY ON SFST (
VERTID,
SEASON,
FOOD_TYPE,
SUBSTRATE,
TECHNIQUE);

CREATE UNIQUE INDEX SPP_INFO_KEY ON SPP_INFO (
VERTID);

CREATE UNIQUE INDEX SUBSTRATE_INFO_KEY ON SUBSTRATE_INFO (
SUBSTRATE);

CREATE UNIQUE INDEX TECHNIQUE_INFO_KEY ON TECHNIQUE_INFO (
TECHNIQUE);

CREATE UNIQUE INDEX TSTYPE_KEY ON TSTYPE (
VEGID);

ALTER TABLE SPP_INFO
PRIMARY KEY (VERTID);

ALTER TABLE SPP_INFO
FOREIGN KEY FK_SPP_INFO_1 ((VERTID))
REFERENCES VERTS ON DELETE RESTRICT;

ALTER TABLE TECHNIQUE_INFO
PRIMARY KEY (TECHNIQUE);

ALTER TABLE SFST
PRIMARY KEY (VERTID, SEASON, FOOD_TYPE, SUBSTRATE,
TECHNIQUE);

ALTER TABLE SFST

FOREIGN KEY FK_SFST_1 ((TECHNIQUE))
REFERENCES TECHNIQUE_INFO ON DELETE RESTRICT;
FOREIGN KEY FK_SFST_2 ((FOOD_TYPE))
REFERENCES FOOD_INFO ON DELETE RESTRICT;
FOREIGN KEY FK_SFST_3 ((SEASON))
REFERENCES SEASON_INFO ON DELETE RESTRICT;
FOREIGN KEY FK_SFST_4 ((SUBSTRATE))
REFERENCES SUBSTRATE_INFO ON DELETE RESTRICT;
FOREIGN KEY FK_SFST_5 ((VERTID))
REFERENCES SPP_INFO ON DELETE RESTRICT;

ALTER TABLE FOOD_INFO

PRIMARY KEY (FOOD_TYPE);

ALTER TABLE SEASON_INFO

PRIMARY KEY (SEASON);

ALTER TABLE SUBSTRATE_INFO

PRIMARY KEY (SUBSTRATE);

ALTER TABLE NEOTROPIC_INFO

PRIMARY KEY (NEOTROP);

ALTER TABLE NEOTROPICAL

PRIMARY KEY (VERTID, NEOTROP);

ALTER TABLE NEOTROPICAL

FOREIGN KEY FK_NEOTROPICAL_1 ((NEOTROP))
REFERENCES NEOTROPIC_INFO ON DELETE RESTRICT;
FOREIGN KEY FK_NEOTROPICAL_2 ((VERTID))
REFERENCES SPP_INFO ON DELETE RESTRICT;

ALTER TABLE HABITAT_INFO

PRIMARY KEY (GEN_HABITAT);

ALTER TABLE GENERAL_HABITAT

PRIMARY KEY (GEN_HABITAT, VERTID);


```
ALTER TABLE GENERAL_HABITAT
    FOREIGN KEY FK_GENERAL_HABITAT_1 ((GEN_HABITAT))
    REFERENCES HABITAT_INFO ON DELETE RESTRICT;
    FOREIGN KEY FK_GENERAL_HABITAT_2 ((VERTID))
    REFERENCES SPP_INFO ON DELETE RESTRICT;
```

```
ALTER TABLE LOC_INFO
    PRIMARY KEY (NEST_LOC);
```

```
ALTER TABLE NEST_LOCATION
    PRIMARY KEY (NEST_LOC, VERTID);
```

```
ALTER TABLE NEST_LOCATION
    FOREIGN KEY FK_NEST_LOCATION_1 ((NEST_LOC))
    REFERENCES LOC_INFO ON DELETE RESTRICT;
    FOREIGN KEY FK_NEST_LOCATION_2 ((VERTID))
    REFERENCES SPP_INFO ON DELETE RESTRICT;
```

```
ALTER TABLE TSTYPE
    PRIMARY KEY (VEGID);
```

```
ALTER TABLE TSTYPE
    FOREIGN KEY FK_TSTYPE_1 ((VEGID))
    REFERENCES PLANTS ON DELETE RESTRICT;
```

```
ALTER TABLE PLANTS
    PRIMARY KEY (VEGID);
```

```
ALTER TABLE VERTS
    PRIMARY KEY (VERTID);
```

Distribution

Army Headquarters

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ATTN: ANOP
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ATTN: AEAGC-TD-MO
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Fort Ord 93941
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ATTN: AFZH-DE-Q
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Fort Bragg 28307
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Fort Campbell 42223
ATTN: AFZB-DPW-E
Fort McCoy 54656
ATTN: AFZR-DE-E
Fort Pickett 23824
ATTN: AFZA-FP-E
Fort Stewart 31314
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Fort Buchanan 00934
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ATTN: AFZD-DEM
Fort Drum 13602
ATTN: AFZS-EH-E
Fort Irwin 92310
ATTN: AFZJ-EHE-EN

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ATTN: AFZF-DE-ENV
Fort Hunter Liggett 93928
ATTN: AFZW-HE-DE
Yakima Tng Center 98901-5000
ATTN: AFZH-Y-ENR
Fort Dix 08640
ATTN: ATZT-EHN

TRADOC

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ATTN: ATBO-G
ATTN: ATBO-FE

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ATTN: ATZM-EPE
Fort Jackson 29207
ATTN: ATZJ-PWN
Fort Gordon 30905
ATTN: ATZH-DIE
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ATTN: ATZB-PWN
Fort McClellan 36205
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94

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